



HENAN TIANFON NEW ENERGY TECHNOLOGY CO.,LTD.

Marketing Center:

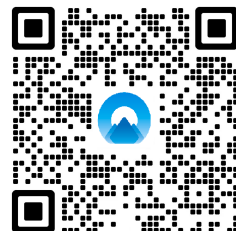
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天丰新能源
TIANFON NEW ENERGY



Committed To Building a Global High-End PV Enterprise

Photovoltaic & Photo-Thermal Power Plant Mounting System

Integration Service of Design, Manufacture and Installation



CONTENTS

Company Profile	02	Tracking System	20
Ground Fixed Mounting System	04	Components	22
Precast Pile Single Post Mounting System	06	Projects Gallery	36
Fixed Adjustable Mounting System	08	Technical Superiority	37
Color Steel Tile Roof Mounting System	10	Certification	38
Concrete Roof Mounting System	12	Quality Control	39
PV Carport Mounting System	14	Qualification and Honor	40
PV Green House Mounting System	16	Customers	42
		Tag	44



Company Profile

Henan Tianfon New Energy Technology Co., Ltd, one of subsidiary companies under Henan Tianfon Group, is the well-known enterprise in the domestic new energy industry. The company is committed to the integration services such as R&D, design, manufacture, installation, engineering management of steel structure, photovoltaic, solar-thermal power station mounting system.

The current products of mounting system include ground mounting, roof mounting, car shed mounting and series of components.

The production base is located in Xinxiang city, Henan province, With 26 production lines of different kinds of steel structures, the annual capacity can reach up to 2,500MW(2.5GW).

Since 2009, we have provided 13.4GW of mounting systems for various photovoltaic projects at home and abroad, Customers include China Huaneng Power, State Power Investment Corp (SPIC), China Huadian Corp. (CHD), China Energy Conservation, China Electric Power, China Nuclear Power and South Grid, GCL, Sungrow, Hanergy, Shanghai Shenzhou New Energy, HNSP, SNPV, Tibetan Energy, Blessing Energy, Chasing Day, Hao Neng, and other Central Enterprise and Powerful Private Enterprises.

Under the guidance of the national strategy "One Belt One Road", we have successfully implemented the projects of support and steel structure maintenance system of ground solar power station in Pakistan, Indonesia, India and Vietnam....etc.

In addition to various certifications and production qualifications, Tianfon also has the following important qualifications:

Grade A Qualification For Steel Structure Design
Grade 1 Qualification in Professional Contracting of Steel Structure Engineering
Special Grade Qualification of Steel Structure Manufacturing Enterprise

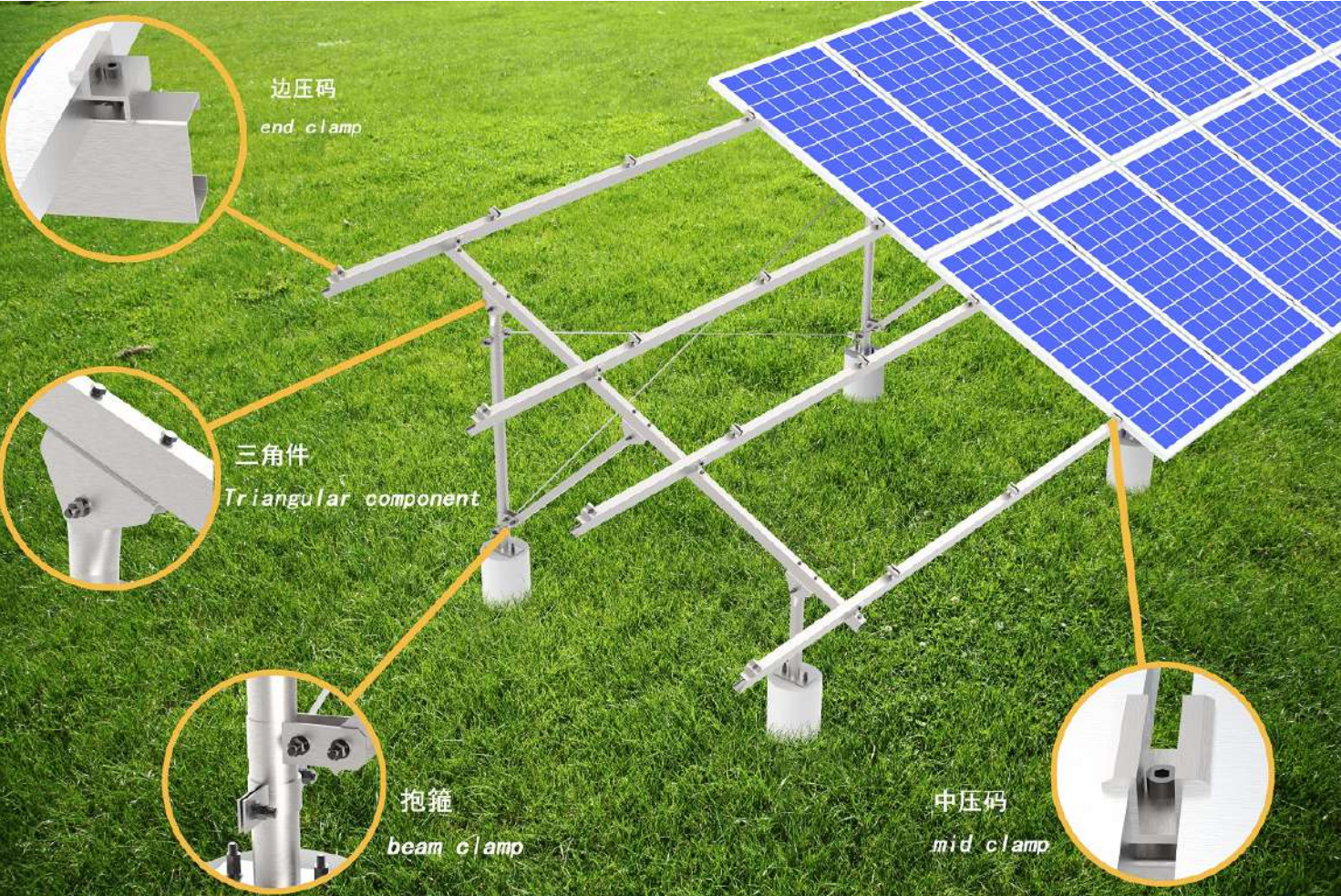
Due to excellent performance in the field of photovoltaic, Tianfon was awarded the following honors:

2014 : " China PV Industry's New Cutting-Edge Enterprise of the Year" award
2014 : " China PV Power Station Excellence Service Provider " award
2015 : The NO. 5 of "TOP 20 Chinese Solar Mounting System Companies
2015 : " China Product Value of Photovoltaic Power Station " award
2015 : " China PV Power Station Excellence Service Provider" award
2016 : Was appointed as the Deputy Director of "China Roof Distributed Photovoltaic Alliance"
2017 : Leading China's Top 100 Renewable Energy Enterprises
2018 : The NO. 5 of "TOP 20 Chinese Solar Mounting System Companies

Tianfon is committed to providing clean power for all and is steadfast in its efforts to becoming a global leading supplier of solar mounting system. Offering a wide range of solutions and service, and bringing value and satisfaction to customers is our persistent pursuit. .



Ground Fixed Mounting System



Feature

Adaptable to most land conditions, high corrosion resistance, low foundation cost, short installation time.

Model TF-GF-S-001

Technical Parameters

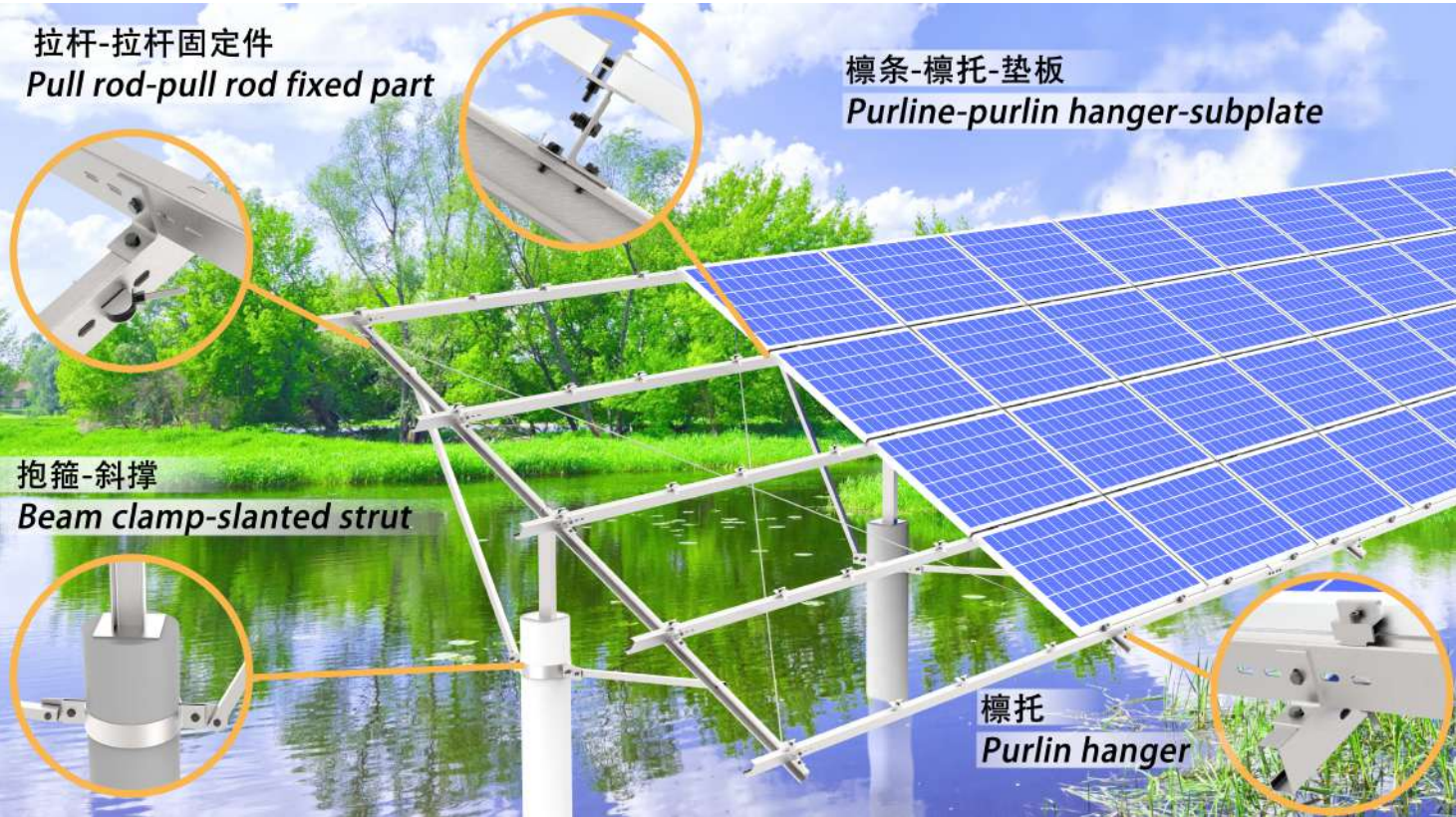
Application	Mounting, Plain, Highland, Desert
Installation Angle	5~45°
Wind Load	≤60m/s
Snow Load	≤1.4KN/m ²
Material	Q235B, Q345B, component aluminum alloy & stainless steel etc., customized upon requirement.
Surface Treatment	Hot Dip Galvanizing & Anodized
Warranty	10 years warranty and 25 years duration



Project Reference



Precast Pile Single Post Mounting System



Model : TF-PS-S-001

Feature :

Precast Pile Single Post Mounting System is mainly used to fishing light complementary PV power station and large mountain solar power station. The system has low requirements on terrain, adapts to various complex terrains, it's convenient and fast to install, could meet various requirements of customers.

Strong ability of adapting to the terrain, saving land, easy installation, high cost-effective.

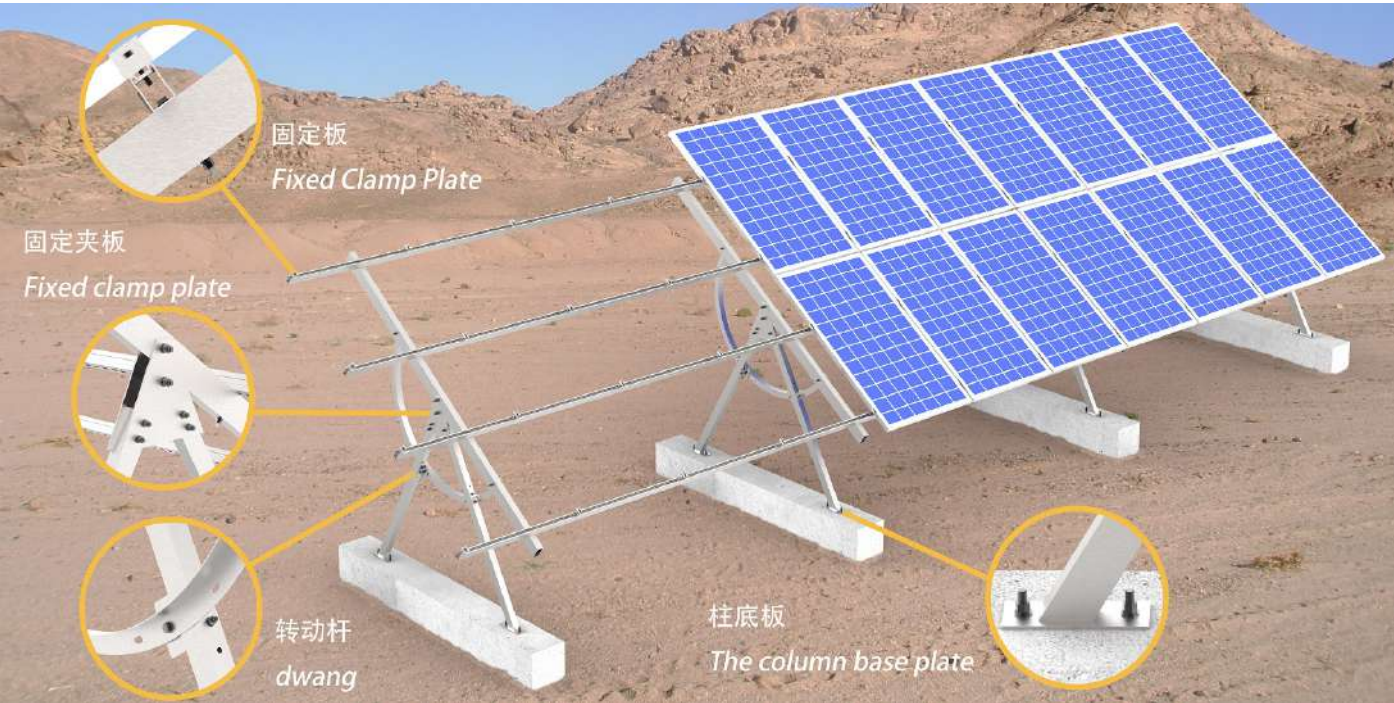
Technical Parameters :	
Application	Fishing light complementary PV power station & large PV power station
Installation Angle	5~40°
Wind Load	≤60m/s
Snow Load	≤1.4KN/m²
Material	Q235B, Q345B, component aluminum alloy & stainless steel etc., customized upon requirement.
Surface Treatment	Hot Dip Galvanizing
Warranty	10 years warranty and 25 years duration



Project Reference



Fixed Adjustable Mounting System



Model : TF-FA-S-001

Feature :

Smart design, adjust the angle of the component according to the season, solar power output increased by 4% to 10%.

Project Reference

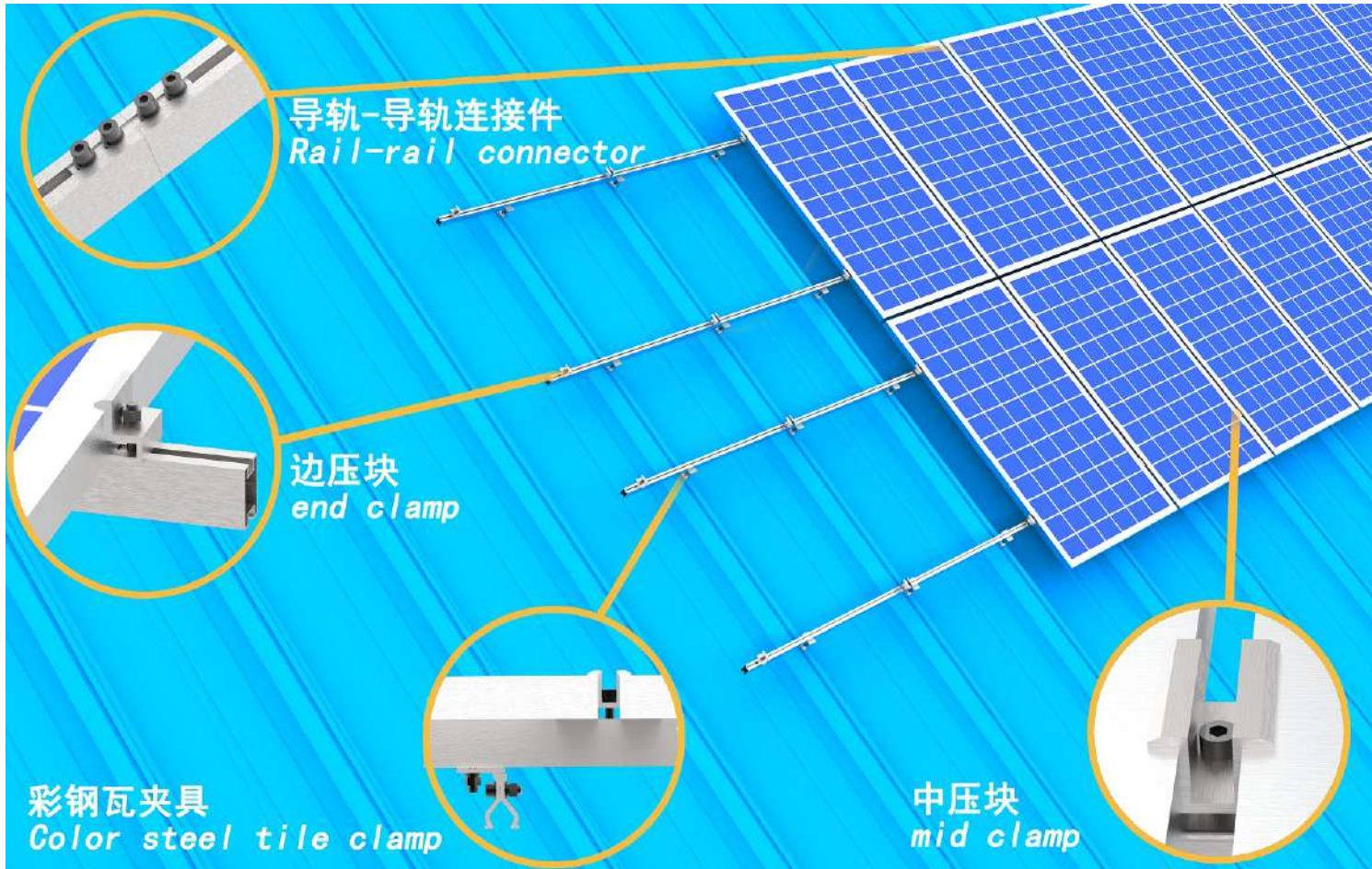
Technical Parameters :

Application	Region of high latitude
Installation Angle	5~60°
Wind Load	≤60m/s
Snow Load	≤1.4KN/m²
Material	Q235B, Q345B, component aluminum alloy & stainless steel etc., customized upon requirement.
Surface Treatment	Anodizing
Warranty	10 years warranty and 25 years duration





Color Steel Tile Roof Mounting System



Feature :

Design different fixture or connector according to the original structure of Color Steel Tile, fix components tightly, and do not damage the roof structure, convenient installation.

Model:TF-CT-A-001

Technical Parameters :

Application	Industrial Factory Rooftop
Installation Angle	Parallel to the roof
Wind Load	≤45m/s
Snow Load	≤50cm
Material	Q235B, Q345B, component Aluminum Alloy & Stainless Steel etc., customized upon requirement.
Surface Treatment	Anodizing
Warranty	10 years warranty and 25 years duration

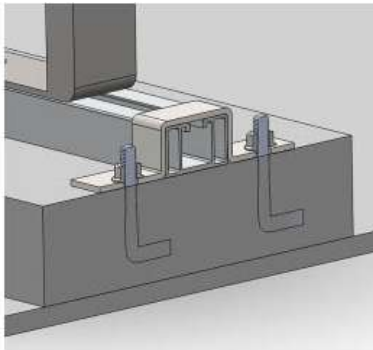
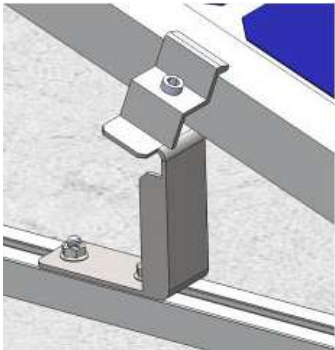
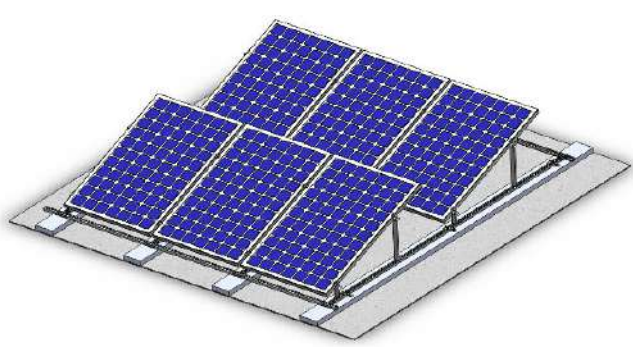


Project Reference

Concrete Roof Mounting System



Model :TF-CR-A-001



Feature :

Mainly Used In Flat Roof, High Strength and Easy Installation.

Technical Parameters :

Application	Roof of High Buildings and Large Mansions
Installation Angle	5~40°
Wind Load	≤45m/s
Snow Load	≤50cm
Material	Q235B, Q345B, component aluminum alloy & stainless steel etc., customized upon requirement.
Surface Treatment	Hot-dipped Galvanization
Warranty	10 years warranty and 25 years duration

Project Reference



PV Carport Mounting System



Technical Parameters :

Application	Private, Government and Enterprises Parking Lot
Installation Angle	5~30°
Wind Load	≤60m/s
Snow Load	≤1.4KN/m²
Material	Q235B, Q345B, component Aluminum Alloy & Stainless Steel etc., customized upon requirement.
Surface Treatment	Hot-Dipped Galvanization Or Anodizing
Warranty	10 years warranty and 25 years duration

Feature :

Simple Structure, short lead time.Fast installment, low cost of maintenance and replacement.

Model :TF-CP-S-001

Project Reference





PV Greenhouse Mounting System



Model :TF-GH-S-001

Feature :

Making full use of agricultural land and photosynthesis, protect the plants from extreme weather, and promote the growth of crops.

Technical Parameters :

Application	Farm
Installation Angle	5~30°
Wind Load	≤60m/s
Snow Load	≤1.4KN/m²
Material	Q235B, Q345B, component Aluminum Alloy & Stainless Steel etc., customized upon requirements.
Surface Treatment	Hot-dipped Galvanization
Warranty	10 years warranty and 25 years duration

Project Reference
案例图





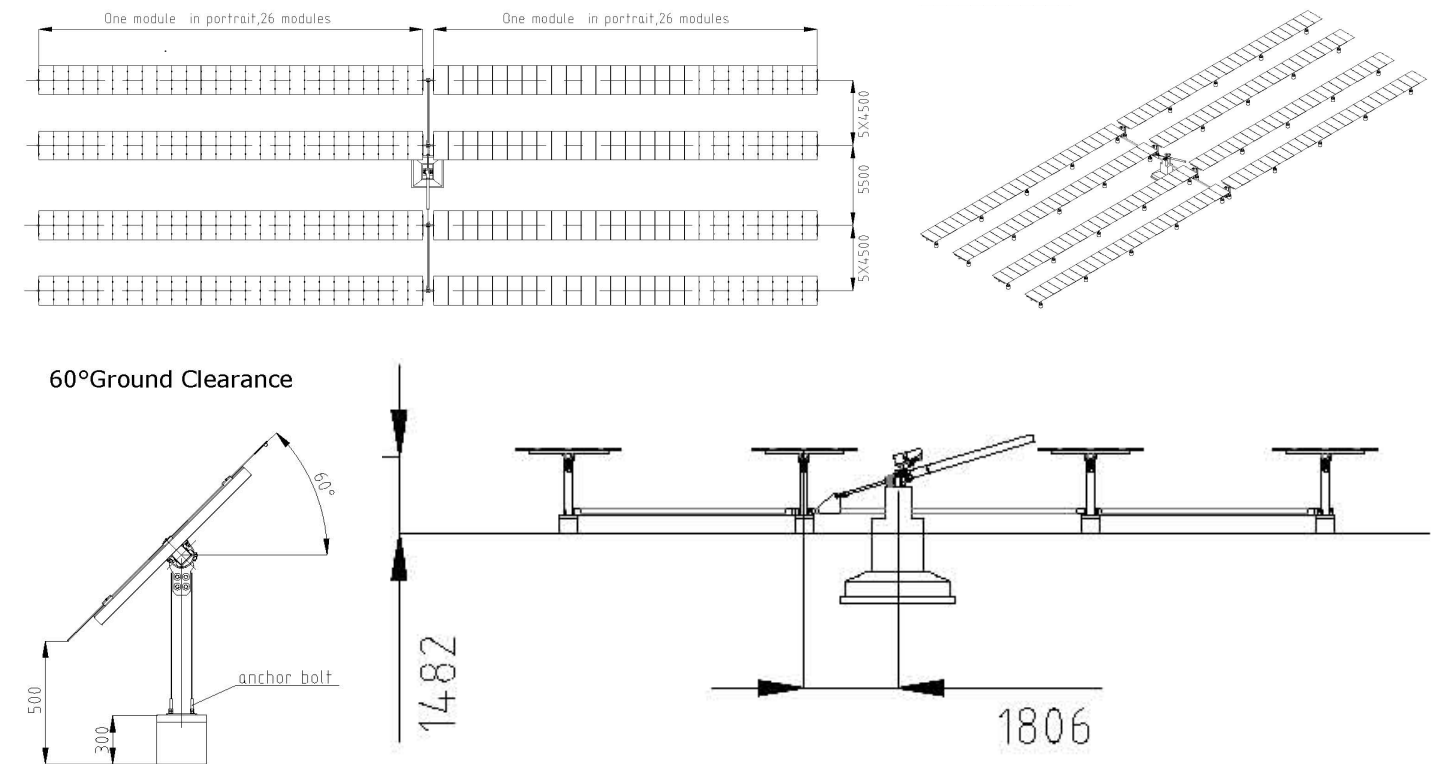
Single Axis Horizontal Tracking System



Product Feature :

Model :TF-TK-S-001

- Revolutionary tracker designed in mechanical structure, control unit, power approach, overall cost to EPC competitive with fixed mounting system. Electrical control unit warranty: 5 years.
- Lower installation costs: Adjustable columns, allows for $\pm 200\text{mm}$ vertical foundation tolerance.
- Lower operation and maintenance costs: independent, self-tracking rows, vehicles are free to move throughout the array vs. linked rows.
- More robust than conventional tracker system, better wind resistance.
- Automatic tracking with accuracy < 1 degree, 10-25% more power generation.
- Automatic orientation set-up, quick assembly with zero adjustment time for tracking.
- Quick production turn-around time, delivery time guarantee for 100MW+ scale projects.



Project Reference





Dual-Axis Tracking System



Model :TF-TK-S-002



System Characteristic

- Automatic Tracking
- Independent Reset
- Manual Control
- Group Control
- Wind Speed Test
- Night Reposition Function

Array

Modules Assembly Area	33m²
Modules Assembly Arrangement	20 modules (4x5)
Module Reference	250W - 1650x991x40mm
Power Generation Capability	5KW

Array

Modules Assembly Area	65m²
Modules Assembly Arrangement	40 modules (5x8)
Module Reference	250W - 1650x991x40mm
Power Generation Capability	5KW

Tracking

Tracking Accuracy	≤1°
Tracking Angle Range	Altitude angle: 10°-75°
Azimuth	-120° to +120°
Tracking Principle	GPS-Based Control Tracking

Structure

Material	Hot Galvanized Steel
Electronic Control Cabinet	IP65, Weather Proof, Junction Connected
Max. Operation Wind Load	22m/s
Max. Load of Wind Resistance	34m/s
Working Temperature	-40°C to 60°C
System Life	≥25 Years

Motor

Motor Power	96W
Average Annual Power Consumption	≤18KWh
Controller Power Input	AC110V/AC220V



Project Reference




Components

Underpinning

Name	Size (mm)	Thickness (mm)	Materials	Surface Treatment	PIC
Spiral Pile with Ring Flange	φ 76/89,1000-2000mm (Length)	4	Q235B	Hot Galvanizing	
Spiral Pile without Ring Flange	φ 76/89,1000-2000mm (Length)	4	Q235B	Hot Galvanizing	
Steel Tube Pile	φ 76/89,1000-2000mm (Length)	4	Q236B	Hot Galvanizing	

Components of Aluminum Mountings

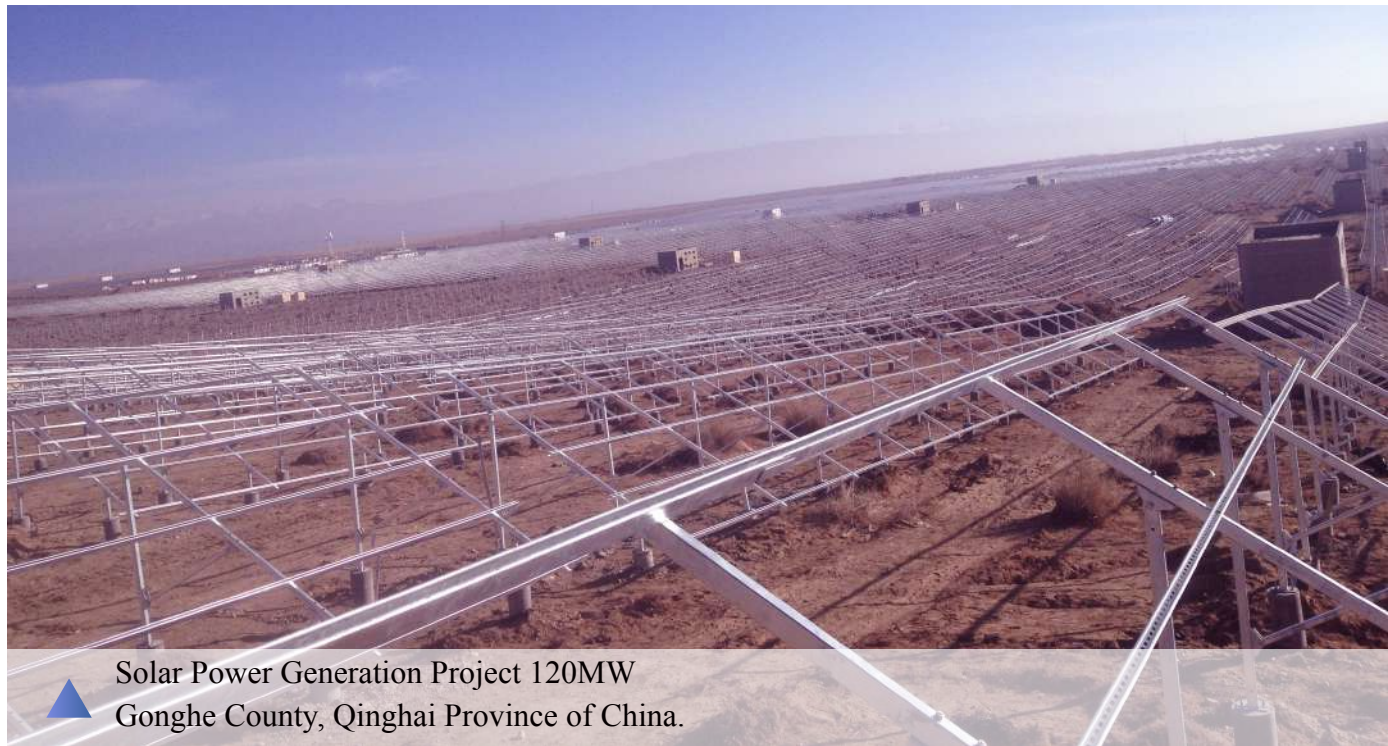
Name	Size	Materials	Surface Treatment	PIC-1	PIC-2
Guide Rail	30*40mm, 40*50mm	Aluminum 6063-T5	Anodizing		
Middle Clamp	35/40/45/50mm	Aluminum 6063-T5	Anodizing		
Edge Clamp	35/40/45/50mm	Aluminum 6063-T5	Anodizing		
Middle Clamp for Double Glasses PV Modules	80/100/120mm	Aluminum 6063-T5	Anodizing		
Edge Clamp for Double Glass PV Modules	80/100/120mm	Aluminum 6063-T5	Anodizing		
Trapezoid Clamp	Common Thickness 345mm	Aluminum 6063-T5	Anodizing		
Angular Clamp	Common Thickness 345mm	Aluminum 6063-T5	Anodizing		
Vertical Side Whipstitch Clamps	Common Thickness 345mm	Aluminum 6063-T5	Anodizing		

Components of Galvanized Steel Mountings

Item	Name	Size (mm)	Thickness (mm)	Material	Surface Treatment	PIC-1	PIC-2
Cold Bending Profiles	C Type Steel	C40*40*10	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		C60*40*15	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		C80*40*15	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		C100*50*15	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		C120*50*20	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
	U Type Steel	U41*21	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		U41*41	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		U52*41	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		U62*41	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
		U72*41	1.5-2.5	Q235B/Q345B	Hot Galvanizing		
Standard Materials	Circular Tube	φ60	2.5	Q235B/Q345B	Hot Galvanizing		
		φ60	3.0	Q235B/Q345B	Hot Galvanizing		
		φ76	4.0	Q235B/Q345B	Hot Galvanizing		
		φ89	4.0	Q235B/Q345B	Hot Galvanizing		
	Square Tube	40*40	2.0-2.5	Q235B/Q345B	Hot Galvanizing		
		60*40	2.0-3.0	Q235B	Hot Galvanizing		
		80*40	2.0-3.0	Q235B	Hot Galvanizing		
Joint Components	Triangular Joints		3.0/4.0	Q235B	Hot Galvanizing		
	Beam Clamp		3.0/4.0/5.0	Q235B	Hot Galvanizing		
	Purlin Joint		3.0/4.0	Q235B	Hot Galvanizing		
	L Type Joint		3.0/4.0	Q235B	Hot Galvanizing		
	Hook		3.0/4.0/5.0	Q235B	Hot Galvanizing		



Projects Gallery



▼ Solar Power Generation Project 60MW
Chongzuo , Guangxi Province of China





Projects Gallery



▲ Solar Power Generation Project 12.68MW
Weifang, Shangdong Province of China



▲ Solar Power Generation Project 12.68MW
Weifang, Shangdong Province of China



▲ Factory Area PV Power Generation EPC Project 3.36MW
Xinxiang City, Henan Province of China



▲ Agricultural PV Greenhouse & Hilly Area Project 20MW
Tunchang County, Hainan Province of China.



Projects Gallery



▲ Solar Power Generation Project 23.56MW
Tonglu County, Zhejiang Province of China



▲ Solar Power Generation Project 18.5MW located in Xingdao Lake, Guangxi Province of China



▲ Agricultural PV Greenhouse & Hilly Area Project 20MW
Tunchang County, Hainan Province of China.



Projects Gallery



▲ Solar Power Generation Project 83MW
Delinha, Qinghai Province of China



▲ Ground Solar Power Generation Project 355MW
Hong Phong of Vietnam



▲ Ground Solar Power Generation Project 355MW
Hong Phong of Vietnam



Projects Gallery



▲ Hilly Area Solar Power Generation Project 22.6MW
Guanliangshan, Yunnan Province of China



▲ Roof Solar Power Generation Project 4.22MW
Hangzhou, Zhejiang Province of China



▲ Solar Power Generation Project 122MW
Jinzhai Anhui Province of China



Projects Gallery

Sewage Treatment Solar Power Generation EPC Project 2.4MW
Zhengzhou, Henan Province of China



Sewage Treatment Solar Power Generation EPC Project 2.4MW
Zhengzhou, Henan Province of China



Solar Power Generation Project 100MW in Yangjiang
Guangzhou Province of China

Agricultural Greenhouse Project
Hebei Province of China



Projects Gallery



Hilly Area Solar Power Generation Project 7.6MW in Helin County, Inner Mongolia of China

Solar Power Generation Project 32MW in Xiangdao Inner Mongolia of China





Technical Superiority

1. Our technical team is made up by 40 engineers with 10 years design installation experience of mounting solutions.
2. Tianfon has more than 100 solar solutions. All the system can connect with different foundation (concrete base, punching pole, screw pole) using different material (steel, aluminum or special material) according to the requirement of clients.
3. Characteristics of brief configuration, high strength, easy installation and competitive cost which could meet with the requirement of clients at the earliest.
4. Tianfon brings in advanced manufacture equipment and the most excellent management and technical talents in the industry, constantly improves product process, accelerates upgrading of products and develops Hitech prospective products.

Certification





Quality Control

Materials	Standard	Guarantee Life Time (Y)	Status	Special Remarks
Carbon Steel with hot-dipped galvanization	GB/T 3274-2007 GB/T 13912-2002 GB/T 10125-1997	1-3	No obvious visible defects on surface of product; No defect in physical properties.	1. There might be slight deviation in appearance due to rain, exposure under the sun, sand, strong alkali or strong acid environment. The deviation includes color darkness, color fading; but it will not affect the physical properties.
		3-10	No defect in physical properties; only slight rust point visible on surface allowable.	
		10-15	No defect in physical properties; partly rust, pock or white spot on surface allowable.	
		15-25	Partly rust, color fading, anodizing on surface treatment allowable; No large-sized rust and anodizing mark. No defect in physical properties.	
Aluminum Profile Parts	GB/5237.1-2008 GB/5237.2-2008 GB/5237.3-2008 GB/5237.4-2008	25	Color-fading allowable. No defect in physical properties.	2. During the transportation, load, unload, installation of galvanized solar mounting products, part of the surface treatment might be destroyed. This does not belong to the range of physical property damage. This damage shall be repaired by manual zinc spray refer to GB/T 13912-2002.
Stainless Steel Hardware	GB/3098.3-82	25	No rust in appearance in normal atmosphere environment; slight deviation in appearance might happen in strong alkali or strong acid atmosphere environment (dark color or yellow etc.) No defects in physical properties	

Qualification and Honor





Customers





Tag

Henan Tianfon Group is committed to benefiting the society in the photovoltaic industry, helping the society to solve the problem of electricity use for population without electricity and poor areas, realizing targeted poverty alleviation, intensive land use, popularization of renewable energy, layout of energy Internet, conservation of water resources, and creating a clean, smart and renewable new world.



天丰新能源

TIANFON NEW ENERGY

有天丰的撑护，让您更放心！

You are more assured with Tianfon's support !