



Empowering Solar Energy with **High-Power**
Microinverter Innovation.

Towards the Sun

"PV panels face the sun to generate more energy.
TSUN faces the challenge to manufacture innovation."
Mr. Andy Liu

About TSUN



Launching PV + Storage
products into
home-appliance era

Initiating the era of high
power microinverters

Our Mission:
Promoting
solar&storage
safety + cost-effective
solutions

1st

Microinverter Brand Certified by VDE's Latest EMC Testing

10,000+

Global Installations

15+

Years Industry Leadership

No.1

Powerful Microinverter

30+

Countries Export Footprint

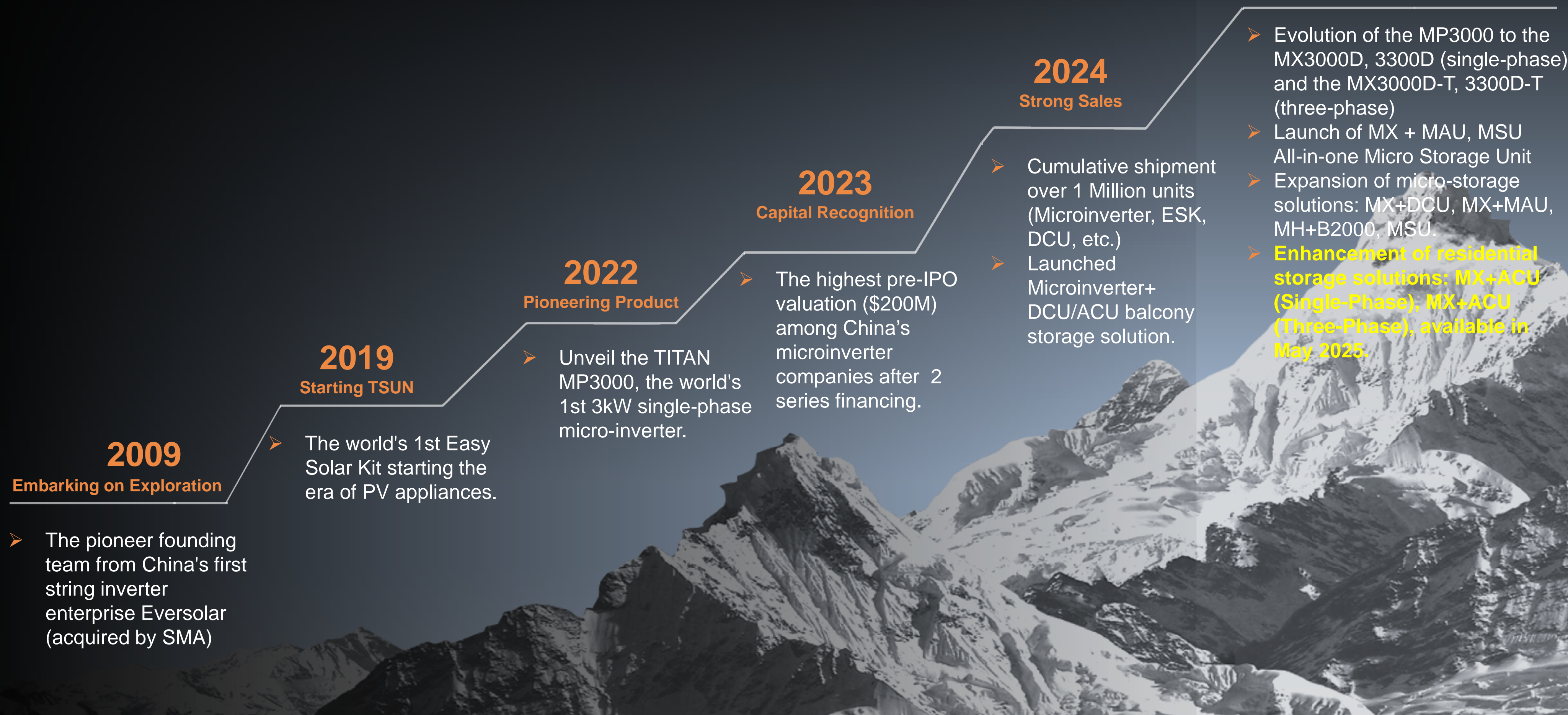
1,000,000+

Annual Production Capacity



Milestones and vital times

MORE SAFETY MORE POWER



The most honored, dynamic, and innovative company since 2019

17+
Invention patents

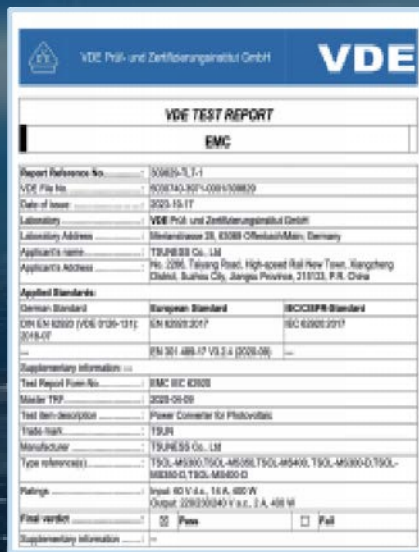
39+
Utility patents

17+
Design patents

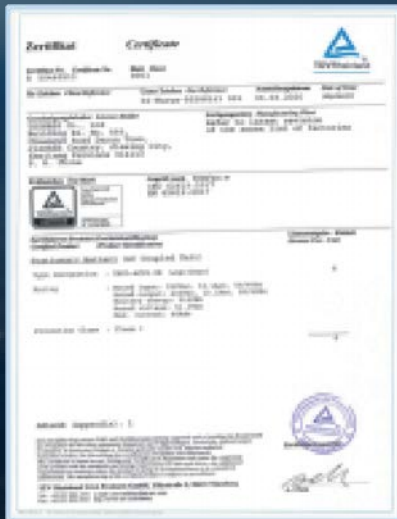
4+
Software copyrights



CE



VDE



TUV



BV



UL



Output Capacity Planning

2023 1.0



Factory 1.0
4000+1000m²



5 assembly stations



Production capability of
60,000 sets per month



2024 2.0



Factory 2.0 **11000m²**
(Put in use in 2023.12)



5 assembly production lines
ESK production lines



Monthly manufacturing
capacity of 200,000 sets



2025 3.0



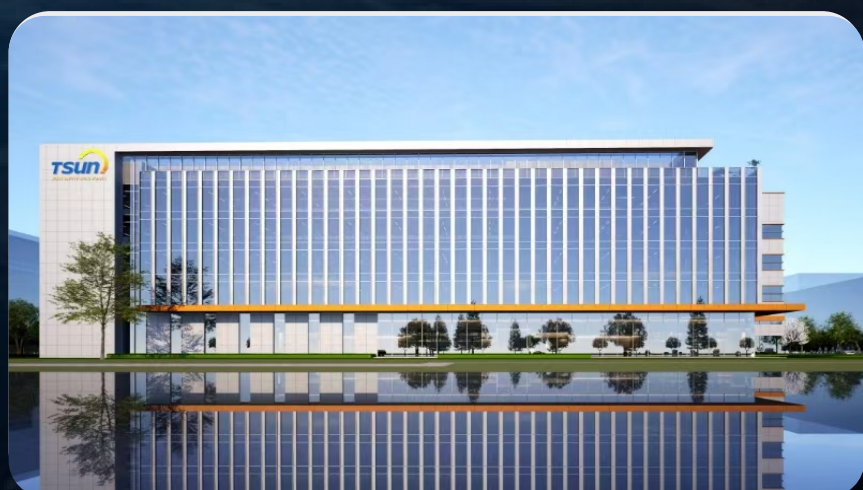
Factory 3.0 **47000m²**
(Construction starts in 2025.6,
with delivery scheduled for
2026.6)



2 automated SMT production lines
8 automated assembly production
lines



Monthly production capacity of
400,000 sets



Capital Support

Angel Investors

- ✓ CEO and Partner of a globally diversified group in PV product manufacturing and power station investments.
- ✓ Senior executive of the world's top-ranked component brand.
- ✓ CEO of a leading domestic PV power station investment platform.
- ✓ Partner in a top domestic integrated photovoltaic manufacturing group

International Investment Institutions



- ✓ GLP is a globally leading industrial service and investment company specializing in the supply chain, big data, and new energy sectors. Hidden Hill Capital is a private equity investment institution under GLP and specializes in new energy.
- ✓ Has invested in benchmark enterprise such Solarman, SHPT, SHQC.

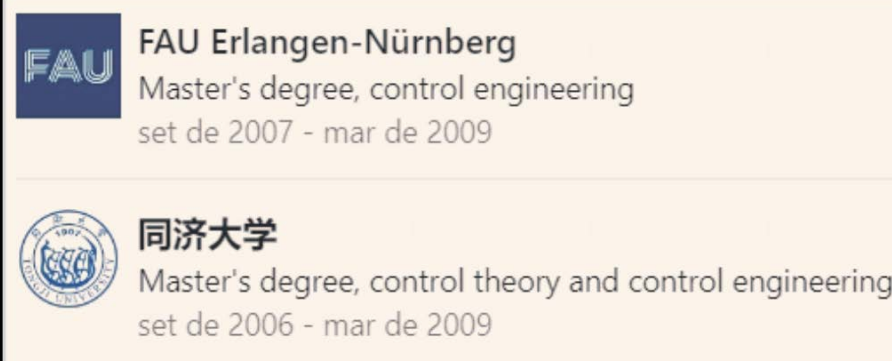
IDG Capital

- ✓ IDG Technology Venture Investment Fund, founded in 1992, is the earliest foreign investment fund to enter China and one of the most influential investors in the photovoltaic and energy storage industries in the past decade.
- ✓ Has invested in benchmark enterprise such Astronergy, GCL power and AIKO.

Founder



M.Sc Andy Liu
Founder & CEO



PV Industry

- Entered the PV field in 2009, 15+ years industry experience.
- Initiating inverter transformerless solutions.
- The world 1st inverter IoT-enabled solutions.

Proficient Manager

- Accumulated 10GW+ PV Projects.
- Operation of a Photovoltaic Power Station Investment Company.

Cofounder & Partner

- Co-founder of Eversolar (acquired by SMA), the first inverter company in China.
- Partner in a number of pro-listed companies in China: Sofar, Solarman, QT solar, PROJOY.

Credentials

- Innovation and Entrepreneurship, Talent Program at the Provincial, Municipal and District Levels.
- Enterprise Innovation Masters of "Science and Technology Innovation in Jiangsu" Program.

Central Leadership Team



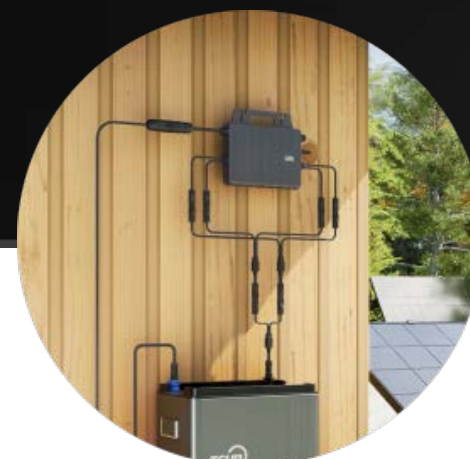
Ellen Xue
Sales VP

Master of engineering in Germany. One of the first batch of developers of string inverters in China.



Boyal Mao
Global VP

Bachelor's degree with a double major and degree. Former head of Longi Asia-Pacific region.



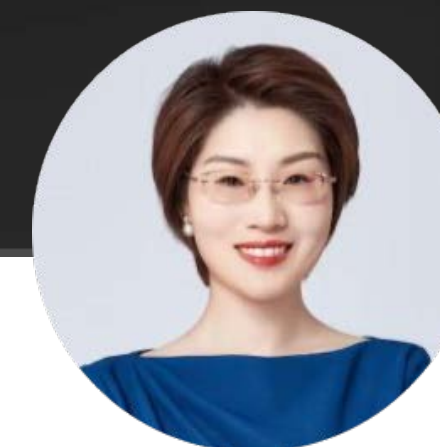
Rick Chen
R&D VP

Master of engineering in Germany. Former head of JingLong Europe region.



Jamison Wu
R&D VP

Master of engineering in Germany. Former head of JingLong Asia-Pacific region.



Jocelyn Yu
MKT VP

Master of marketing in Germany. One of the first batch of developers of string inverters in China.



Helen He
BIZ VP

QS ranks Global 500 Masters in Business. One of the first batch of developers of string inverters in China.



Chenyang Pei
PD

Huazhong University of Science and Technology double degree talent. 10-year R&D experience



Bonny Yao
MGMT VP

Engaged in human resource management in large enterprises as ECOSO. 20+ years of human resource management experience.



Sandy Wang
MFG VP

Business Administration of university of Geosciences; The developer of Lake and Baoshi has rich experience in production management.

15+ Years

Average 15 Years Working Experience in Solar Field

10+ Years

Global Management Experience

Worldwide Leadership Team



Victor Segato
Head of LATAM

Italian-Brazilian citizen with more than 20 years of executive experience in international trade, logistics, sales, purchasing and project .



Jingjing Zhang
European COO

Master of marketing in Germany, +15 years of executive experience in European marketing, sales and investment.



Anoop Bhagat
Country Manager - India

Highly experienced master of technology and business consultant professional with more than 10 years in India's renewable energy sector at large multinationals.



Nataliia Hubar
RD of Eastern Europe

Master Finacial & Business management in UKraine. 10+ years experience in PV industry.

Our global presence ensures that we stay connected with local markets, enabling us to deliver tailored, efficient, and sustainable solar energy solutions. Together, we are committed to advancing the transition to renewable energy worldwide.



Tony Albadin
Technical Manager - DACH

Seasoned telecom/IT leader with 30+ years' technical and executive experience, now passionately driving innovation in renewable energy.



Semih Isikkan
Sales&Marketing - DACH

Germany-based e-commerce specialist with strong negotiation skills and business etiquette.



Stephen
Country Manager - France

Experienced in the French market with strong communication, negotiation, and business development skills.



Shuo
Technical Engineer - France

Experienced and professional pre and after sales engineer in solar industry. Five years of project development experience in French industry

Major Product Lines






ESK Balcony Vertical ESK Balcony Angled ESK Balcony Air Vertical ESK Balcony Air Angled






ESK Pop-up ESK Universal ESK Universal Powered by Longi ESK Transformer



Easy Solar Kit (ESK)
PIONEER OF PLUG & PLAY SOLUTION PROVIDER

Pioneer of Plug & Play Solution Provider

Make Safety Affordable

300W to 6000W Peak Output
INNOVATOR OF HIGH-POWER MICROINVERTERS

GEN 3 Series

1-in-1 out: 300W/350W/400W/450W/500W 2-in-1 out: 600W/700W/800W/900W/1000W 4-in-1 out: 1600W/1800W/2000W/2250W 6-in-1 out: 2400W/2500W/2700W/3000W/3300W



TITAN Series


4 or 6-in-1 out: 2250W/3000W/3000W 6-in-1 out: 3680/3750/4000/4600/5000/6000






Innovator of High-Power Microinverters

Make Safety Affordable




Storage System
GLOBAL ONE-STOP SOLAR STORAGE SOLUTION SUPPLIER


Hybrid Microinverter
1kW/2kW
2kWh-10kWh



All-in-one Micro Hybrid Storage Unit
1kW/2kW
2kWh-10kWh



All-in-one DC Coupled Unit
1kW
1kWh-5kWh



All-in-one AC Coupled Unit
3.0/3.6/4.0/4.6/5.0/6.0kW
5kWh-20kWh



Global One-stop Solar Storage Solution Supplier

Make Energy Efficient

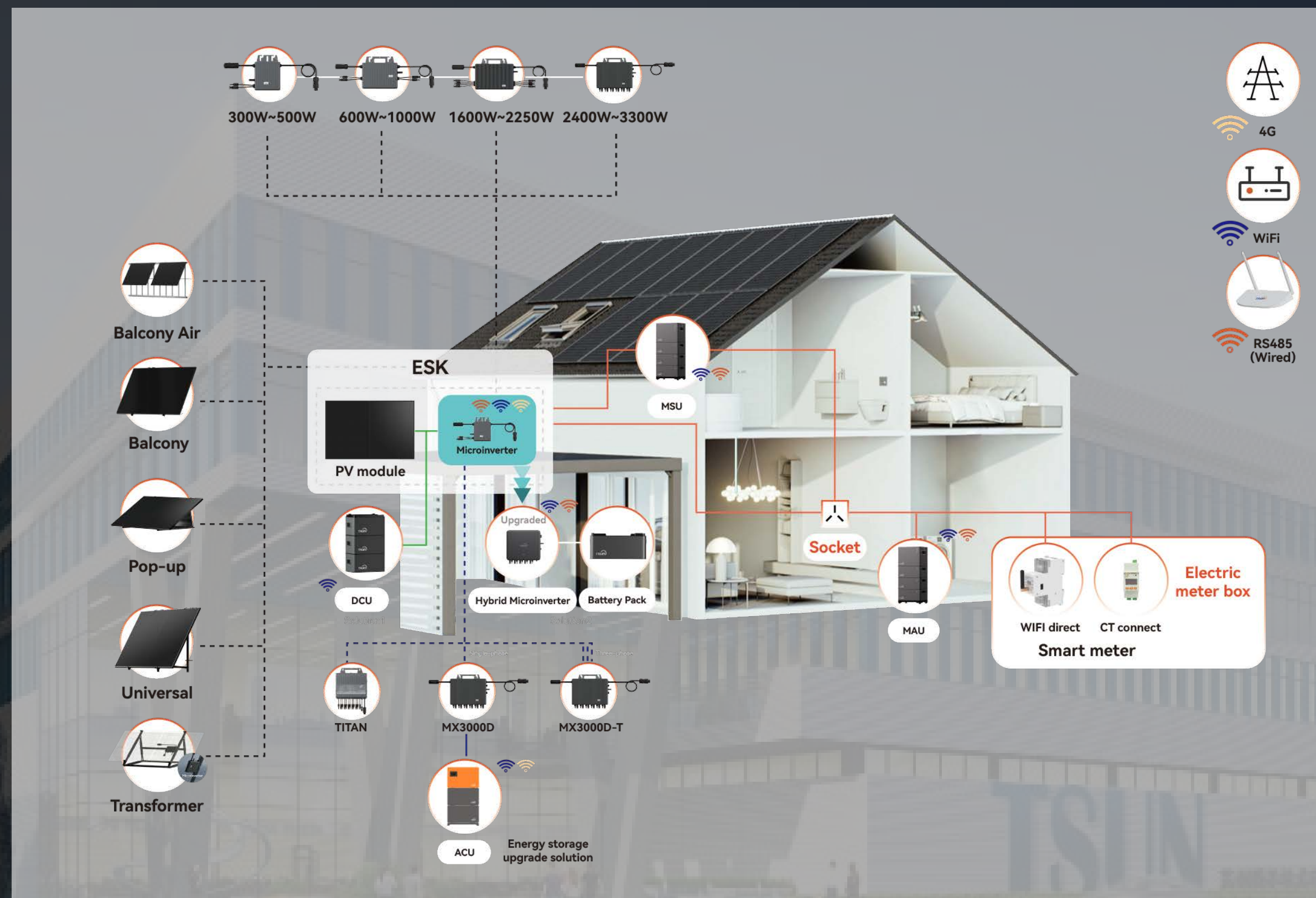
Product Ranges & Solutions

Easy Solar Kit

- 7 Types of ESK
- DIY or Ready to use
- 500W/1000W per Box

Micro Storage

- DCU(1kW/1~5kWh)+MX
- MX+MAU(2kW/2~10kWh)
- MSU(2kW/2~10kWh)
- MH2000 + Batteries



Microinverter

- 300W~6000W
- Single-phase & Three-phase
- WiFi & RS485 & 4G
- TSUN or MDD brand

Residential Storage

- MX+ACU
- Single-phase & Three-phase
- 3~6kW / 5~20 kWh

Complete Solutions for All
Scenarios

Strong Portfolio

Personalized Service

Gen3 Microinverter

High-Power, Efficient, and Reliable



Diversification

- Various models from 300W to 3300W are available.
- Optimized for applications beyond rooftops to balconies, fences, walls and ground.
- Various wiring methods.

Safety

- Max. DC voltage 60V. The system doesn't need to be equipped with RSD, AFCI, DC BOX, optimizer etc. No threat of high DC voltage.
- Excellent heat dissipation performance
- IP67.

Diversification

- Unique topology, DC current 18A.
- Independent MPPT, the highest efficiency can reach 97.0%.

User Friendly

- Three wiring methods, suitable for various scenarios.
- WIFI, Bluetooth, and RS485 multiple communication solutions, ensuring monitoring convenience.
- Product monitoring supports: Installer app, Customer app, OPEN API compatibility with third-party systems, Tuya monitoring.
- Real time monitoring of data for each PV module, which is helpful for operations and maintenance.

Gen3 Microinverter

High-Power, Efficient, and Reliable

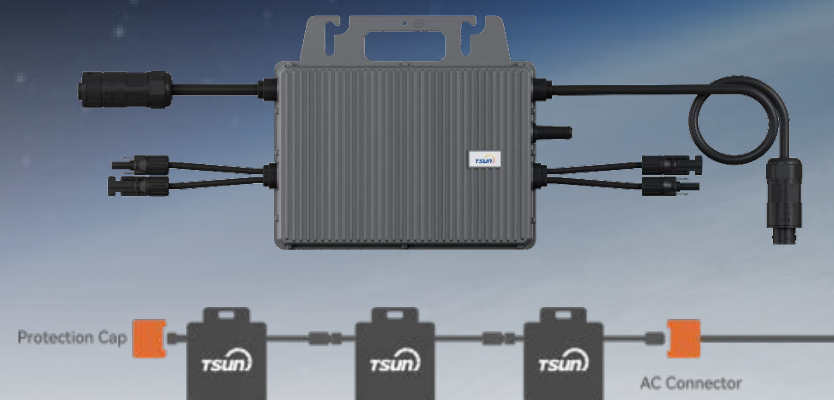


Diverse Wiring Methods

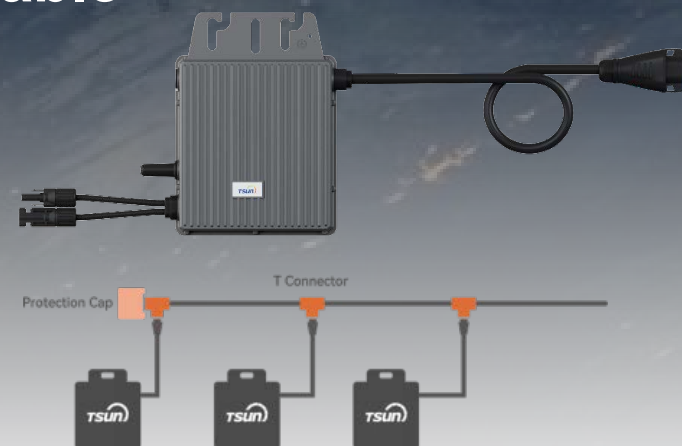
Balcony Wiring



Daisy Chain Wiring



Trunk cable



3 Monitoring Solutions



Wi-Fi

RS485

RS485



4G

Wide Power Range



MS300/MS350/MS400
MX400/MX450/MX500

1-in-1



MP3000/MS3000

TITAN 3000W



MS600/MS700/MS800
MX800/MX900/MX1000

2-in-1



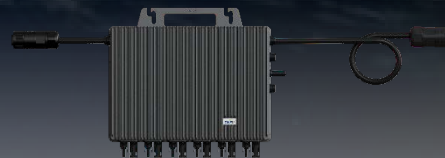
MP6000

TITAN 6000W



MS1600/MS1800/
MS2000/MX2250

4-in-1



MX2400/MX2500/
MX2700/MX3000/MX3300

6-in-1 Three-phase



MX2400/MX2500/
MX2700/MX3000/MX3300

Gen3 Microinverter

High-Power, Efficient, and Reliable



The First Brand in China
to pass the latest EMC
TEST at the German VDE
Laboratory

Compliant with Industry Standard
EN 62920



VDE TEST REPORT			
EMC			
Report Reference No..... : 309829-TL7-1			
VDE File No..... : 5030740-3971-0001/309829			
Date of issue: : 2023-10-17			
Laboratory : VDE Prüf- und Zertifizierungsinstitut GmbH			
Laboratory Address : Merianstrasse 28, 63069 Offenbach/Main; Germany			
Applicant's name : TSUNESS Co., Ltd			
Applicant's Address : No. 2266, Taiyang Road, High-speed Rail New Town, Xiangcheng District, Suzhou City, Jiangsu Province, 215133, P.R. China			
Applied Standards:			
German Standard	European Standard	IEC/CISPR-Standard	
DIN EN 62920 (VDE 0126-131): 2018-07	EN 62920:2017	IEC 62920:2017	
---	EN 301 489-17 V3.2.4 (2020-09)	---	
Supplementary information: ---			
Test Report Form No..... :	EMC IEC 62920		
Master TRF..... :	2020-04-09		
Test item description :	Power Converter for Photovoltaic		
Trade mark :	TSUN		
Manufacturer :	TSUNESS Co., Ltd		
Type reference(s) :	TSOL-MS300,TSOL-MS350,TSOL-MS400, TSOL-MS300-D,TSOL-MS350-D,TSOL-MS400-D		
Ratings :	Input: 60 V d.c., 14 A, 400 W Output: 220/230/240 V a.c., 2 A, 400 W		
Final verdict :	<input checked="" type="checkbox"/>	Pass	<input type="checkbox"/> Fail
Supplementary information :	--		



TEST REPORT	
EMC	
2	
71-0001/309829	
VDE Prüf- und Zertifizierungsinstitut GmbH	
Merianstrasse 28, 63069 Offenbach/Main; Germany	
TSUNESS Co., Ltd	
No. 2266, Taiyang Road, High-speed Rail New Town, Xiangcheng District, Suzhou City, Jiangsu Province, 215133, P.R. China	
Standard	IEC/CISPR-Standard
EN 62920:2017	IEC 62920:2017
EN 301 489-17 V3.2.4 (2020-09)	---
62920	
Power Converter for Photovoltaic	
TSUNESS Co., Ltd	
Type reference(s)	TSOL-MS300,TSOL-MS700,TSOL-MS800,TSOL-MS600-D,TSOL-MS700-D,TSOL-MS800-D
Ratings	Input: 60 V d.c., 2 x 14 A, 800 W Output: 220/230/240 V a.c., 4 A, 800 W
Final verdict	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Supplementary information	--

TITAN Microinverter

Leading the Global Microinverter Market



TITAN dominates the single-phase power rankings for microinverters, as verified by Solarbe and Solarbe Global.

TSUN TITAN TSOL-MP3000 ranks **the #1 spot in power Ranked #2 in efficiency listed** within its power range globally.

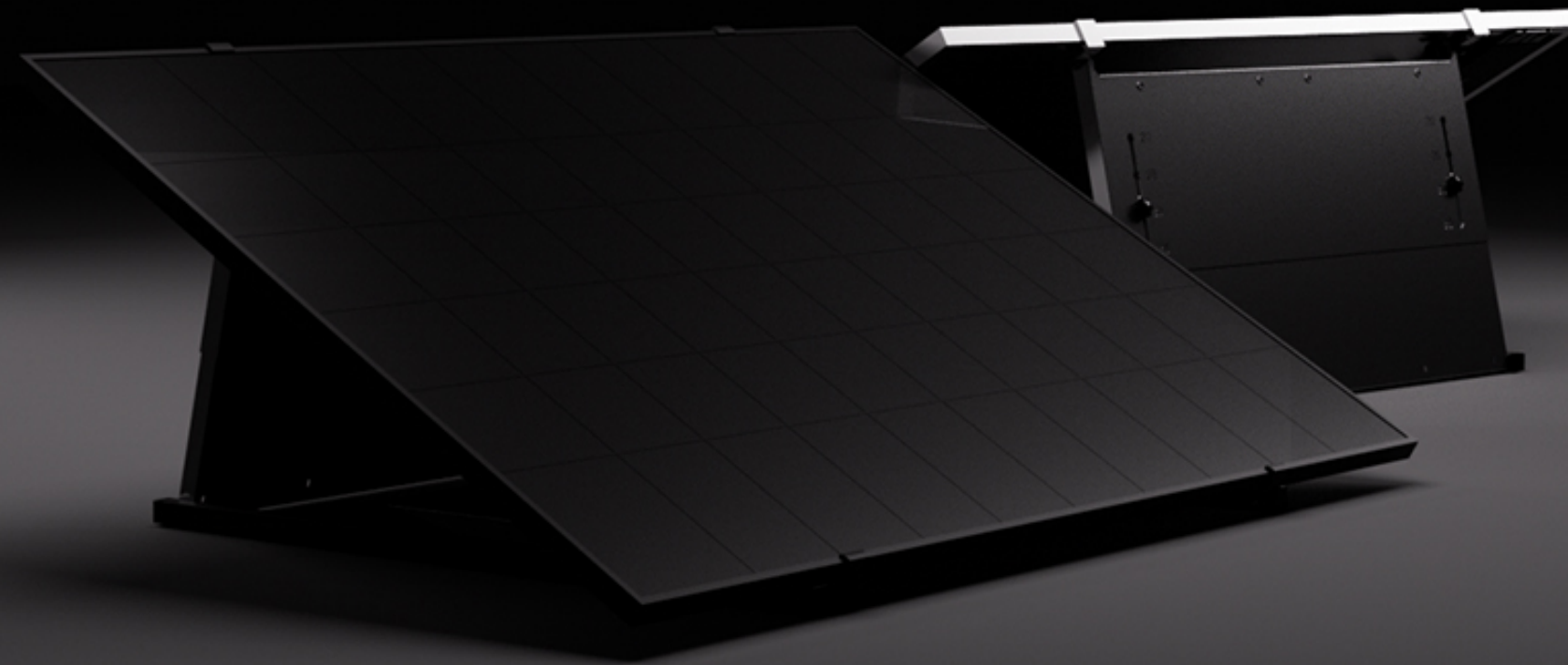
Revolutionizing traditional microinverters with unmatched power and efficiency.

Single-phase Microinverter Power Output Ranking		
Data source: SOLARBE GLOBAL		
Company	Company	Peak Output Power(W)
TSUN	TSOL-MP3000	3000
Company A	MR2400	2400
Company B	M2-2.25K-S4	2250
Company C	SUN-M220G4-EU-Q0	2200
Company D	DS3D	2000
Company E	HMS-2000-4T	2000
Company F	NEO 2000M-X	2000
Company G	GW2000-MIS	2000
Company H	SE 2KMI-Q14	2000
Company I	IS-200	2000
Company J	EVT2000	2000

Single-phase microinverter efficiency list		
Data source: SOLARBE GLOBAL		
Ranking	Company	Efficiency
1	Company A	97.50%
2	TSUN	97.20%
3	Company B	97.00%
3	Company C	97.00%
3	Company D	97.00%
4	Company E	96.70%
4	Company F	96.70%
4	Company G	96.70%
5	Company H	96.50%
5	Company I	96.50%
5	Company J	96.50%

Easy Solar kit (ESK with Microinverter)

Effortless solar solutions designed for convenience and efficiency.



Key Features



Multi-applications



Angle Adjustable



All-in-one Box

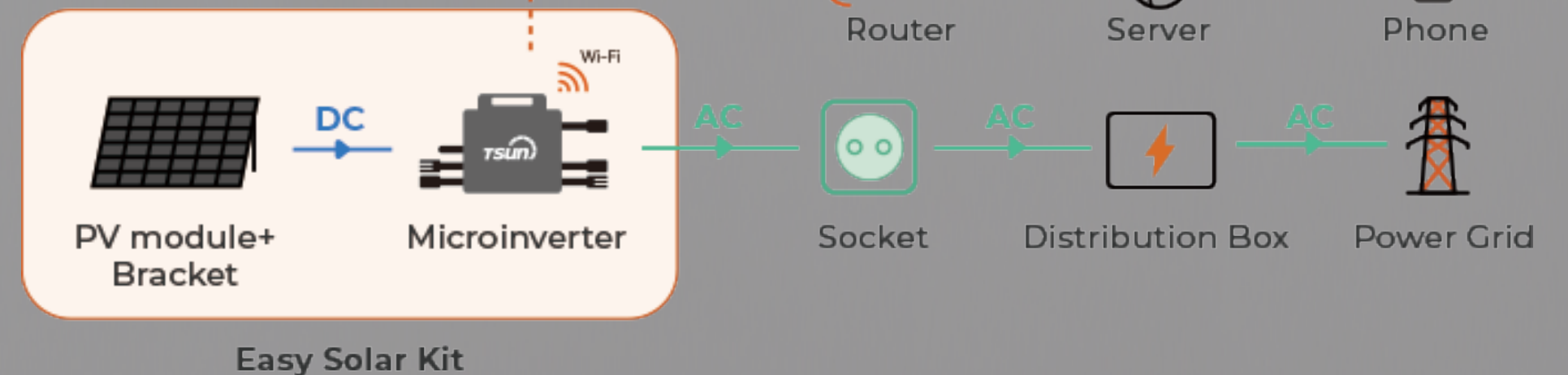


Plug & Play



Built-in WiFi, Bluetooth
APP Remote Monitoring

System Diagram



Easy Solar kit (Plug & Play Soalr System)

Effortless solar solutions designed for convenience and efficiency.

Balcony Solar Solutions

ESK Balcony Air



ESK Balcony Air Angled



ESK Balcony Vertical



ESK Balcony Angled



Flat Ground Solar Solutions

ESK Pop-up (Pre-Assembly/Connected in Series up to 3kW)



Solar Solutions for All Scenarios

ESK Universal (Connected in Series up to 3kW)

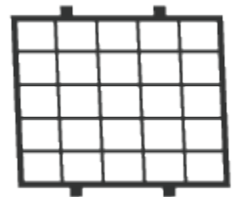


ESK Transformer (Connected in Series up to 3kW)



Easy Solar kit

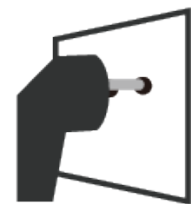
All-in-one Solar System



All-in-one



DIY



Plug&Play



WiFi Intergrated,
APP Remote Monitoring

User-Friendly Design

Intuitive and easy-to-use solutions tailored for seamless solar integration.



All aluminium Solid



Snow-prevention



Wind-resistant



Highly Waterproof

Reliable & Durable

Engineered to last, delivering consistent performance and exceptional long-term value



Angle Adjustable
Ensure high power output



Multi-channel MPPT
system
Smart meter with zero
export

Power Optimization

Maximizing energy output for efficient and reliable solar performance.

Micro Storage Unit (MSU)

SolarTrunk MSU2000



A compact solution for efficient solar energy storage and management.

Key Features



Zero Export



Charge Battery from
Module and Grid



All-in-one Unit

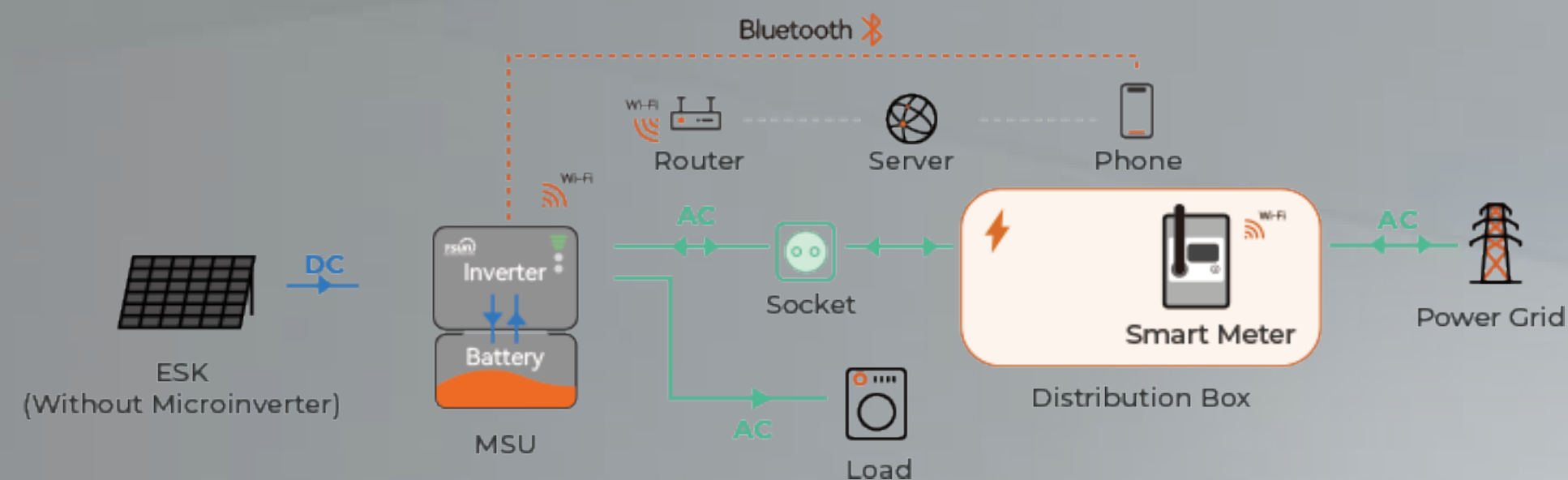


-20°C ~ +55°C
Working
Temperature



Built-in WiFi, Bluetooth
APP Remote Monitoring

System Diagram



Micro Storage Unit (MSU)

SolarTrunk MSU2000

An innovative solution for compact, efficient, and reliable solar energy storage.

Micro Storage Unit (MSU)

A key component of the plug-and-play hybrid storage system, the MSU integrates a hybrid inverter (supporting on-grid, off-grid, and energy storage functions) with a battery pack. It stores excess energy and releases it when needed.

Self-Consumption Mode

Paired with a smart meter, the MSU measures grid data and automatically adjusts power output for optimized energy use.

1kW/2kWh-10kWh

TSOL-MSU1000

2kW/2kWh-10kWh

TSOL-MAU2000



Micro AC Coupled Unit (MAU)

PowerTrunk MAU2000

A versatile solution for seamless integration of energy storage and AC power systems.

Key Features



Zero Export



Charge Battery from
Module and Grid



All-in-one Unit

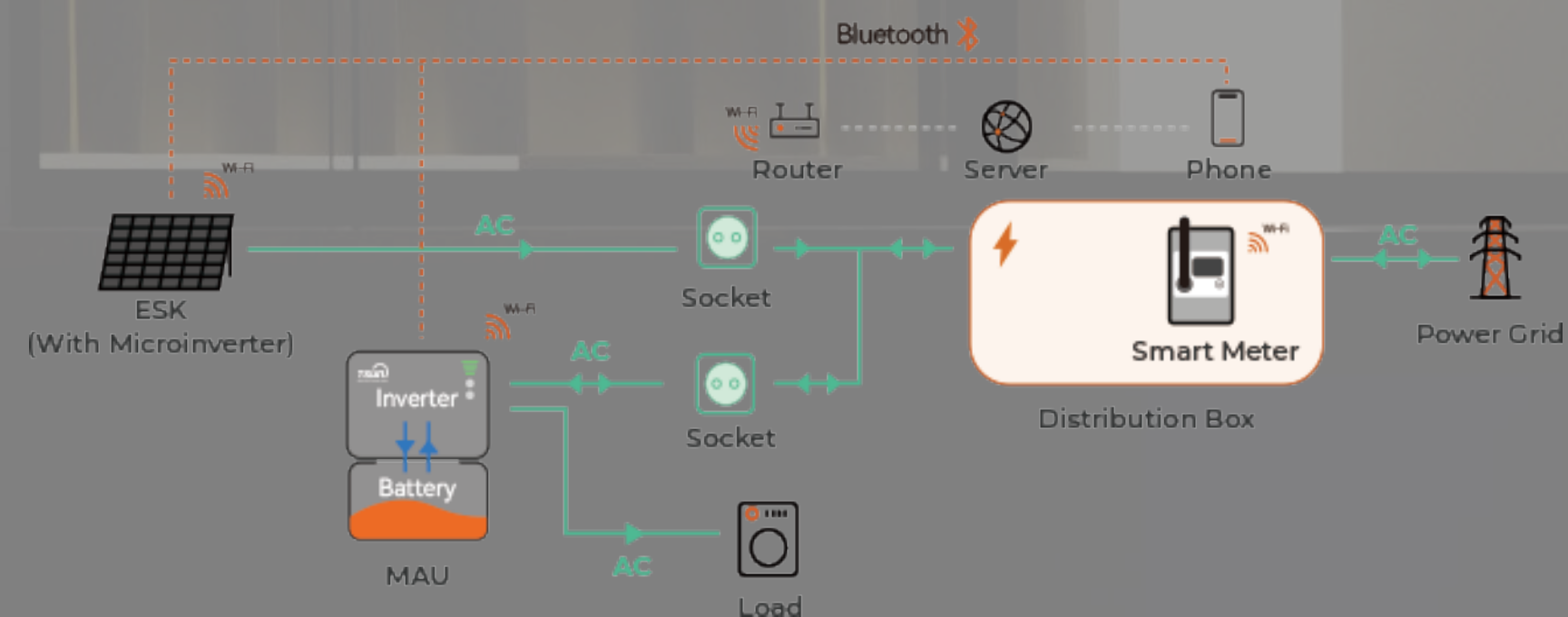


-20°C ~ +55°C
Working
Temperature



Built-in WiFi, Bluetooth
APP Remote Monitoring

System Diagram



Micro AC Coupled Unit (MAU)

PowerTrunk MAU2000

A flexible solution enabling seamless energy storage integration with AC systems.

Micro AC Coupled Unit (MAU)

A key component of the Plug & Play Energy Storage System, the MAU integrates an energy storage inverter and battery pack. It stores excess PV-generated electricity and converts it into AC power when needed.

Self-Consumption Mode

Works with a smart meter to measure grid data and control output power automatically.

Additional functions:

Charging Schedule: Set up to two charging time periods.

Back-Up Mode: Store electricity for use during grid outages.

1kW/2kWh-10kWh

TSOL-MAU1000

2kW/2kWh-10kWh

TSOL-MAU2000



DC Coupled Unit (DCU): Innovative Solution

Seamless energy storage and management for enhanced solar efficiency.

Key Features



Flexible Configuration



Plug & Play



-20°C ~ +45°C
Working
Temperature

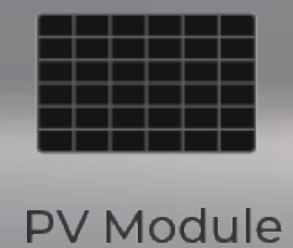
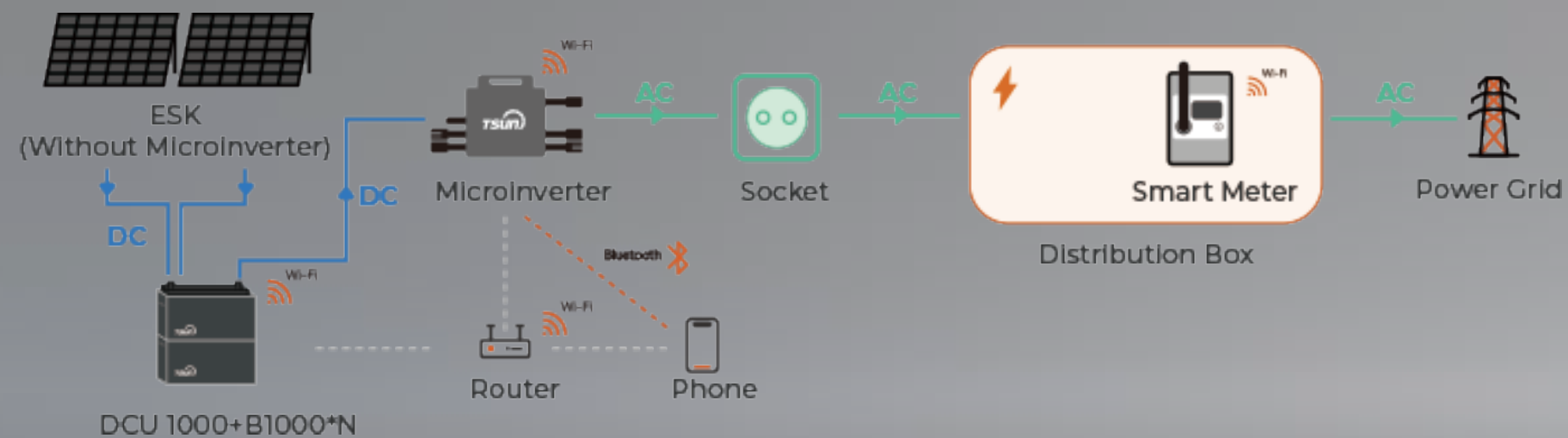


Portable Power
Station
(Optional)



Zero Export
(Optional)

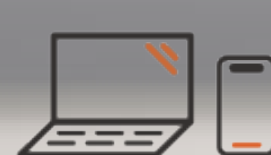
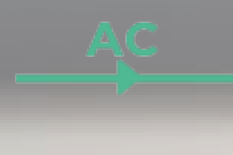
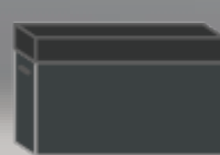
System Diagram



PV Module



P1000+B1000/DCU1000



Load



DC Coupled Unit (DCU)

Efficient and seamless energy storage for optimized solar performance.



Indoor

DC Coupled Unit (DCU) is one of the plug and play storage system which designed for end-users.

DC Coupled Unit, which is connected between solar modules and balcony microinverter, can store excess electrical energy in the battery and release it when needed.

This solution, Solar Module + DCU+ Balcony Microinverter, is typically used as an energy storage solution for small household, conventional balconies, courtyards, family carports, and other micro systems



DCU1000

DC Coupled Unit 1.024 kWh
Input 1200W DC Output 800W

B1000

Battery Pack 1.024 kWh

Outdoor



P1000

Off-Grid Inverter Input 600W
AC Output 1000W

B1000

Battery Pack 1.024 kWh

Hybrid Microinverter

Integrates solar generation and storage for efficient performance.



Key Features



Charge Battery from
Module and Grid



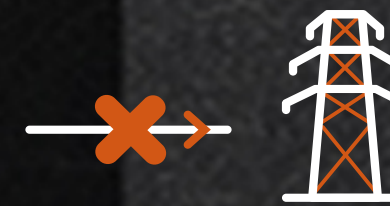
Compatible with
Various Types of
Batteries



-40°C ~ +65°C
Working
Temperature

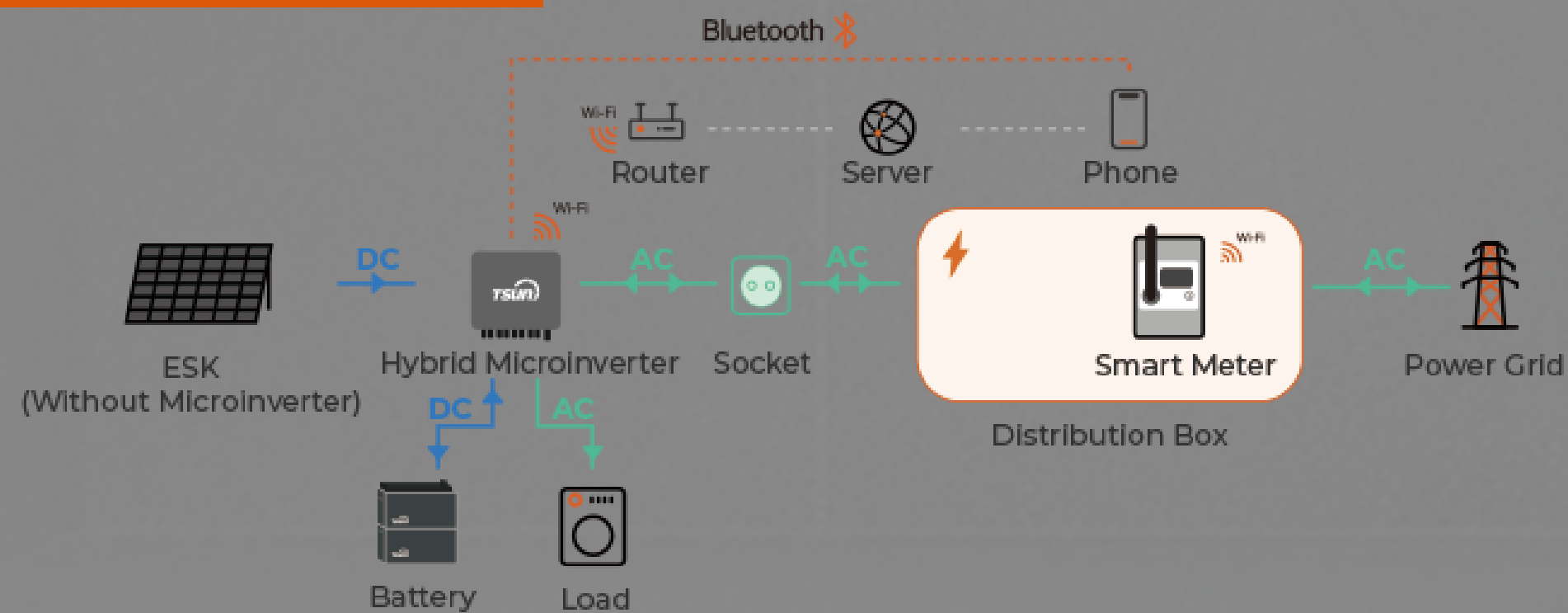


Built-in WiFi, Bluetooth
APP Remote Monitoring



Zero Export
(Optional)

System Diagram



Hybrid Microinverter

Combines solar generation and storage efficiently.

Hybrid Microinverter (MH)

A key component of the plug-and-play hybrid storage system, supporting on-grid, off-grid, and energy storage functions. It stores excess solar energy in the battery and releases it when needed.

The Hybrid Microinverter, connected between the solar modules and the batter, can store excess electrical energy in the batter and release it as needed.

2kW Hybrid Microinverter



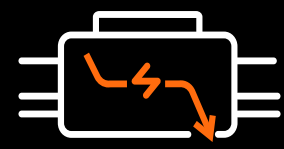
TSOL-MH2000/TSOL-MHI800
TSOL-MH1600/TSOL-MH2000(800)



AC Coupled Unit (ACU)

Efficient energy storage for existing AC systems with backup and self-consumption capabilities.

Key Features



Low PV
Voltage Input



Flexible
Configuration



All-in-one Unit

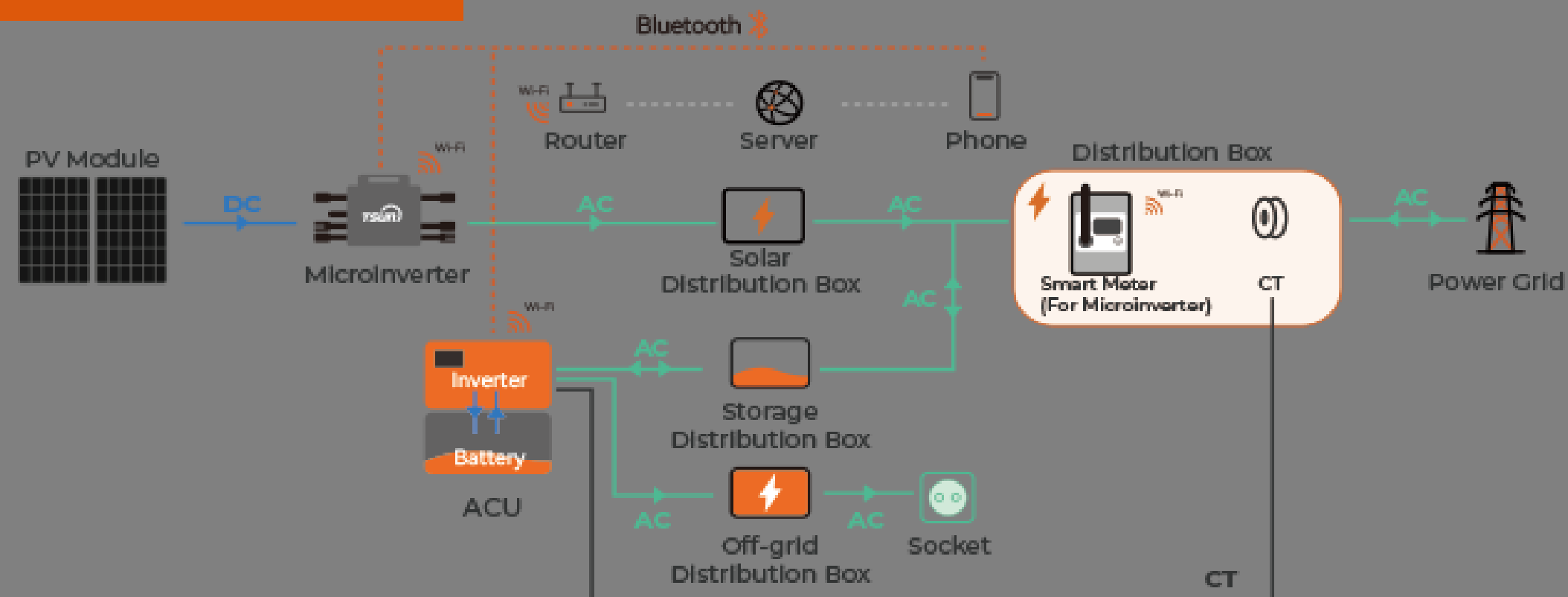


Zero Export



Built-in WiFi, Bluetooth
APP Remote Monitoring

System Diagram



AC Coupled Unit (ACU)

Efficient storage and management for existing solar energy setups.

The AC Coupled Unit (ACU):

A vital part of the Energy Storage System, combining an energy storage inverter with a battery pack. The ACU stores electricity and efficiently converts it to AC power in three modes:

Self-Consumption

Peak Shift

Battery Priority

Inverter:3kW-6kW

TSOL-ACU3.0K/3.6K/4.0K/4.6K/5.0K/6.0K

Battery:5kWh-20kWh

TSOL-B100E-S



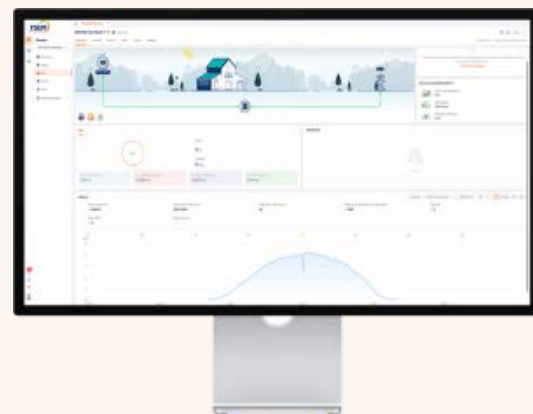
Data Insight Solutions

Monitoring Platform



TSUN SMART(APP)

For Distributors, Installers and End Users



TSUN Portal (Web)

For Distributors and Installers

<https://pro.talent-monitoring.com/>

Universal Monitoring System

Provide logo rebranding solutions

API Connectivity Monitoring System



Open API enables seamless data integration with customer monitoring platforms

Optional Tuya Module



International + Localization → Glocalization



- ▶ Branch: 3
- ▶ R&D Centre: 3
- ▶ Overseas Office: 6

➤ Distribution Policy



TSUN works exclusively with a limited number of partners, generally favoring a single partner per region.

➤ Marketing Campaign Support



TSUN actively supports its distributors in their marketing efforts, providing promotional materials, design assistance and cost participation for roadshows, events and advertising.

➤ **Logistics & Supply Chain Support**

If distributors provide a confirmed forecast, TSUN can produce and ship them ahead of time to our warehouses in Europe. This approach reduces delivery times and offers distributors greater flexibility in purchasing goods.



➤ Financial Support and Payment Flexibility

TSUN supports its clients throughout the credit insurance application process (SINOSURE), using its expertise to maximize the amount granted.

Facilitated access to credit

Comprehensive assistance to optimize coverage acquisition.

Various payment options

Once credit insurance is approved, TSUN offers flexible payment terms, with the option to pay:

with a down payment +

Credit Sale (Open Account),
30 or 60 days.

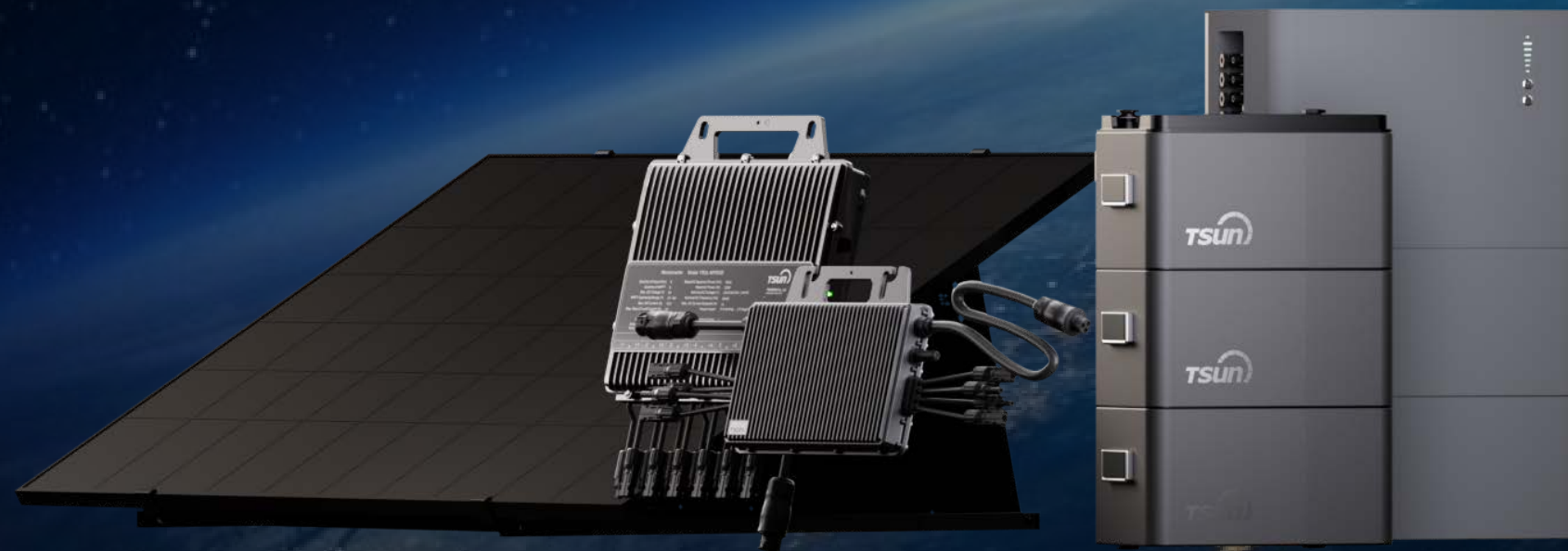
Cash flow optimization

Reduce financial pressure, strengthen liquidity management, and ensure smooth business development.

Product Customization



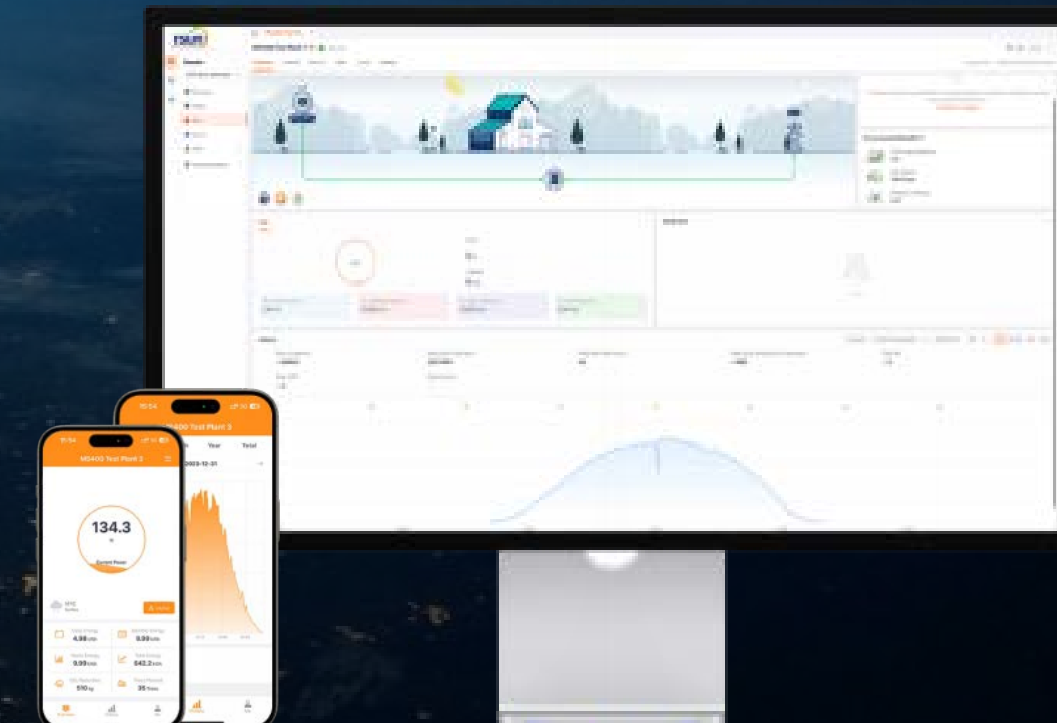
For our distributors, TSUN offers in-depth customization to meet specific requirements.



Monitoring App Customization



Open API – Allows distributors to customize their own software by directly integrating system performance data.



Localized and Responsive After-Sales Service

Technical Support Network

Europe



www.tsun-ess.com



DACH: service_DE@tsun-ess.com

FISP: service_FR@tsun-ess.com

UK: service_Uk@tsun-ess.com

Eastern Europe: service_PL@tsun-ess.com



+49 157 33950909

Latin America



pt.tsun-ess.com



suporte@tsun-ess.com



+55 31 99635-3765

Asia Pacific



www.tsun-ess.com



service_THA@tsun-ess.com

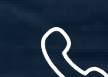
China



www.tsun-ess.cn



service_CN@tsun-ess.com



400 8658100

Localized and Responsive After-Sales Service



Local team

Online and offline training programs
for sales and technical teams



Online Support 24h/24

Assistance available at all times



Authorized Service Partner

Official TSUN certification for
authorized distributors



Exclusive Service for Key Accounts

Assignment of a dedicated technical expert to
provide direct and personalized after-sales support.

TSUN Product Roadmap 2025

Microinverter Range

- Series: 1-in-1 / 1-in-2 / 1-in-4
- Topology: Flyback architecture
- MPPT: 1, 2, or 4 independent trackers

Microinverter Series

- North American Models: 1-in-2 / 1-in-4
- Topology: LLC Resonant Full Bridge
- Technologies: ZVS & ZCS (Zero Voltage Switching & Zero Current Switching)
- Benefits: Low switching losses, low electromagnetic interference (EMI)

Microstorage Product Line

- All-in-one MSU/MAU
- All-in-one solar + storage solution

G1.0
2022-2023

G2.0
2023-2024

G3.0
2024-2025

G4.0
2025-2026

Microinverter Range

- New Model: 1-in-6
- Topology: Optimized Flyback

Micro-storage range

- DC-coupled system (DCU)
- Built-in PV simulation
- Compatible with microinverters from several brands

Modular Microinverters

- Models: 1-in-1 / 1-in-2
- Topology: Single-stage resonance
- Technology: GaN power components

Smart Microstorage Range

- Digitized Microstorage
- Compatible with Virtual Power Plants (VPPs)
- AI-based Forecasting Algorithm

TITAN Microinverter
3680~6000W



GEN3 Microinverter
Three Phase



6-in-1
2400W~3300W

GEN3 Microinverter



6-in-1
2400W~3300W

GEN3 Microinverter



4-in-1
1600W~2250W

GEN3 Microinverter



2-in-1
600W~1000W

GEN3 Microinverter



1-in-1
300W~500W

Microinverter

Make Safety Affordable

EASY SOLAR KIT

Make PV Scenarios Flexible

Balcony Air Vertical



Balcony Air Angled



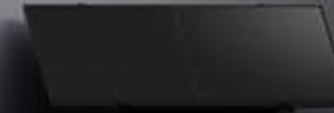
Balcony Vertical



Balcony Angled



Pop Up



Universal



Transformer



THANKS!

All-in-one
AC Coupled Unit



All-in-one
Micro AC Coupled Unit



All-in-one
Micro Hybrid Storage Unit



All-in-one
DC Coupled Unit



Hybrid Microinverter



Storage System

Make Energy Efficient