



## AGRICULTURAL IRRIGATION SYSTEMS

### Catalogue





📍 Garching – Munich Production Center / Germany



📍 Antalya Production Center / Türkiye

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In an increasingly complex world, we continuously adapt to changes and actively encourage all our partners to embrace our long-term goals and values through goal-oriented communication and a deep mutual understanding of our mission. In this way, we aim to provide a valuable contribution for future generations.

# T e c h n o l o g y

## Vision:

Our vision is to be a leader in the development of advanced solar energy technologies that maximize energy efficiency, protect the ecological balance, restore harmony between humans and nature, and accelerate the global transition to renewable energy in order to achieve the set climate goals.

## Mission:

We focus on continuous innovation and research to develop modern solar technology and integrate it efficiently into smart home systems, enabling our customers to benefit from connected and sustainable energy use.

## Today:

Many customers are already benefiting from our modern installations, which we have seamlessly integrated into their homes. This optimizes energy consumption, allowing customers to save money immediately and reduce their carbon footprint.

# O ptimization

"Through intelligent optimization solutions, we achieve the most efficient use of solar energy worldwide, actively supporting the achievement of climate neutrality."

"We are committed to developing and implementing advanced automation and control technologies to optimize energy consumption in households and businesses while significantly reducing operating costs."

Our customers' current energy optimization systems have already achieved significant improvements in emissions.

# M anufacturing

We aim to be a leading manufacturer of solar technologies, setting industry standards for quality and sustainability.

We are committed to producing high-quality and innovative solar products that meet the needs of the present while addressing future challenges. Through continuous improvements and investments in our production processes, we strive to maximize efficiency and minimize environmental impact.

Our customers are already benefiting from the advanced solar products manufactured in our state-of-the-art facilities. These products are not only efficient and reliable but also leading in terms of sustainability and environmental protection. The continuous optimization of our production processes guarantees products that are both economically and ecologically advantageous.

# M ilestones

We are pioneering solar technology that plays a crucial role in contributing to energy independence and climate resilience.

We drive transformative change in the global use of solar energy. By developing technologies that enable significant improvements in performance and ease of use, we are setting new standards.

Customers worldwide are using our technology, and together we are accelerating the transition to renewable energy while achieving both economic and ecological benefits.

# A utomation

To drive the integration of intelligent automation solutions that make the interaction between solar technologies and end users seamless and intuitive.

To develop automation systems that not only operate smoothly but also adapt to consumer needs. These systems aim to optimize energy consumption, enhance operational efficiency, and accelerate the adoption of renewable technologies.

Our customers are enjoying the convenience and efficiency that our intelligent automation solutions bring to their daily lives. These technologies simplify the control of their energy supply, reduce costs, and support the transition to a more environmentally friendly future.





# T r a n s p a r e n c y

## Vision:

We aim to create an atmosphere of openness where everyone from our customers to our employees feels secure and well-informed.

## Mission:

Clear information, no secrets that's our motto. Whether it's about the production of our products or how they function, we keep you constantly updated. We believe that well informed people make better decisions.

## Today:

Our customers and partners benefit from our transparent business management. We ensure complete openness at every stage of our processes, from development to product delivery. This practice of open communication allows our stakeholders to make informed decisions and strengthens trust in long-term collaboration with our company.

# E x p e r i e n c e

We want every interaction with our company to be a positive experience for customers and partners. Our products and services should not only be reliable and innovative but also inspire enthusiasm.

Our goal is to provide each customer and partner with a personalized and valuable experience. With our extensive experience in solar technology, we know what works and we use that knowledge to exceed your expectations and make the transition to sustainable energy easier for you.

Our customers benefit directly from our many years of experience in solar technology. We deliver tailored solutions that are reliable and efficient, supporting every step of the journey toward sustainable energy. Our team ensures a seamless experience through professional advice and assistance.

# C o m m i t m e n t

Our vision is to be a leader in the solar industry through our unwavering commitment to quality and sustainability. We strive to improve in every aspect every day from product development to our services.

Our primary goal is to consistently exceed our customers' expectations. We are committed to the highest quality and continuous improvement of our products and services. Our dedication to sustainability and ethical business practices is unwavering and guides all our actions.

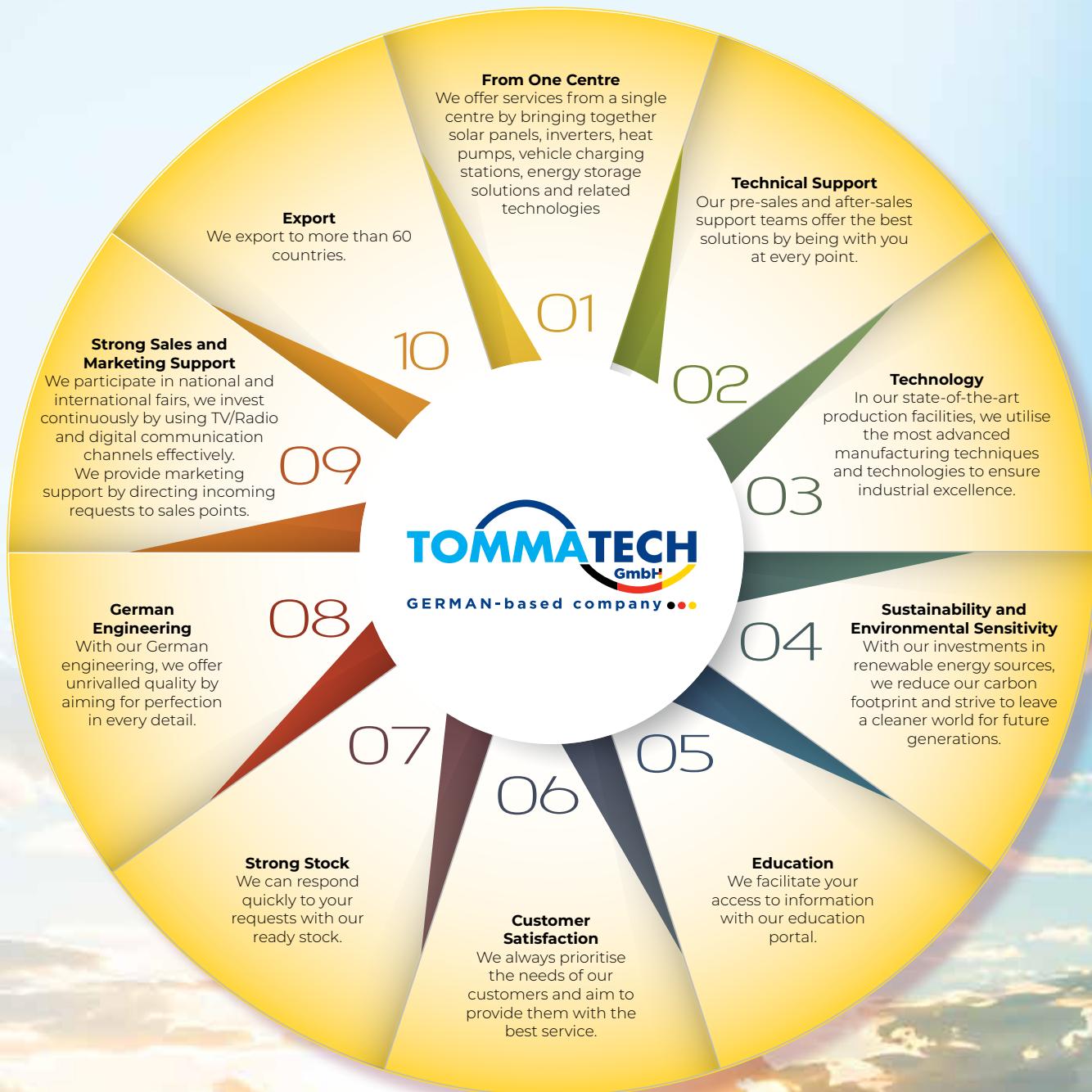
Our customers and partners can rely on our strong commitment. We employ innovative and sustainable technologies to ensure that our solutions are not only efficient but also environmentally friendly. Every project is executed with the highest standards of quality and a focus on long-term customer satisfaction.

# H o m e S o l u t i o n

We aim to transform every home into an eco-friendly energy source. Our vision is to offer advanced solar solutions that are easy to integrate and optimize household energy consumption while contributing to global sustainability.

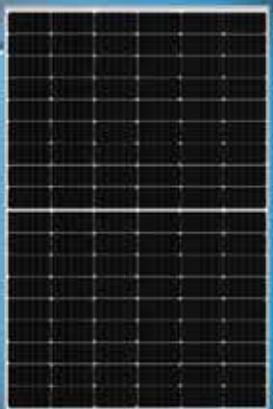
Our goal is to develop customized solar solutions tailored to the specific needs and conditions of each household. We are committed to providing our customers with the best combination of efficiency, ease of use, and economic benefit, making the transition to renewable energy simple and appealing.

Our Home Solution products enable customers to meet their energy needs sustainably while saving costs. Homes equipped with our technology benefit from intelligent energy management and a reduced carbon footprint. Our solutions are not only environmentally friendly but also user-friendly, allowing every household to fully harness the advantages of modern solar technology.



**with TommaTech**

*You are in control!*



## SINGLE-PHASE (MF)

SPI-TT-2.2-MF

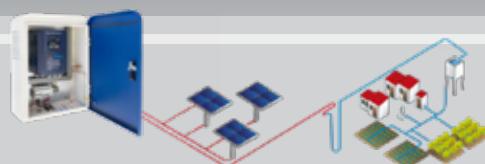


## THREE-PHASE (TF)

SPI-TT-2.2-TF - SPI-TT-250.0-TF

SPI-TT-250.0-TF - SPI-TT-650.0-TF

(Custom Production)



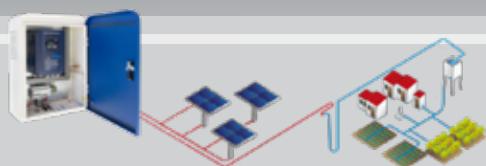
## PRE-ASSEMBLED IRRIGATION BOX

IP55 Protection Rating



## ENERGY MANAGEMENT SYSTEM

TommaTech Solar Irrigation Portal



## WHAT IS A SOLAR PUMP INVERTER?

The TommaTech Solar Pump Inverter is a special inverter series that converts the DC voltage generated by solar energy into AC to operate water pumps running on 220V/230V single-phase or 380V/400V three-phase power, while its internal driver circuit enables the pump motor to start.

TommaTech irrigation inverters are specifically designed for solar irrigation systems and feature a high MPPT voltage.

## HOW DOES A SOLAR PUMP INVERTER WORK?

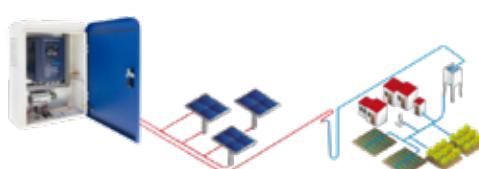
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The instantaneous power generated by the solar panels is converted into the required signals by the irrigation inverter and transmitted to the pump motor. Through the driver circuit inside the inverter, the torque or rotational speed of the pump shaft is adjusted according to the instantaneous power consumption of the pump, providing low flow rates in the morning and evening, and higher flow rates at midday.

The water drawn from a deep well or a surface source can be used immediately or stored in an appropriately sized tank. By using the AC input of the inverter, grid AC voltage can be supplied to the system, enabling irrigation during evening or nighttime hours as well.

## APPLICATION AREAS OF SOLAR IRRIGATION INVERTERS

- Agricultural irrigation projects
- Drinking water treatment & discharge
- Pool water discharge
- Decorative ponds and other applications



## ADVANTAGES OF THE SOLAR PUMP INVERTER

Solar-powered agricultural irrigation inverters offer a more economical solution by providing sustainable and energy-efficient irrigation while reducing dependence on the electrical grid and fossil fuels. In addition to lowering electricity costs, solar energy is a renewable and environmentally friendly power source. Solar-powered irrigation systems reduce the carbon footprint, minimize environmental impact, and ensure higher efficiency thanks to the continuous availability of solar energy throughout the day.

## WHY A SOLAR IRRIGATION INVERTER?

- High-quality components and a durable outer casing
- High input voltage enabling connection of more solar panels
- High performance in cloudy weather thanks to the advanced MPPT algorithm
- Wide operating temperature range:  $-40/+70\text{ }^{\circ}\text{C}$
- Irrigation inverter specially designed for irrigation projects



# TOMMATECH IRRIGATION PUMP INVERTER

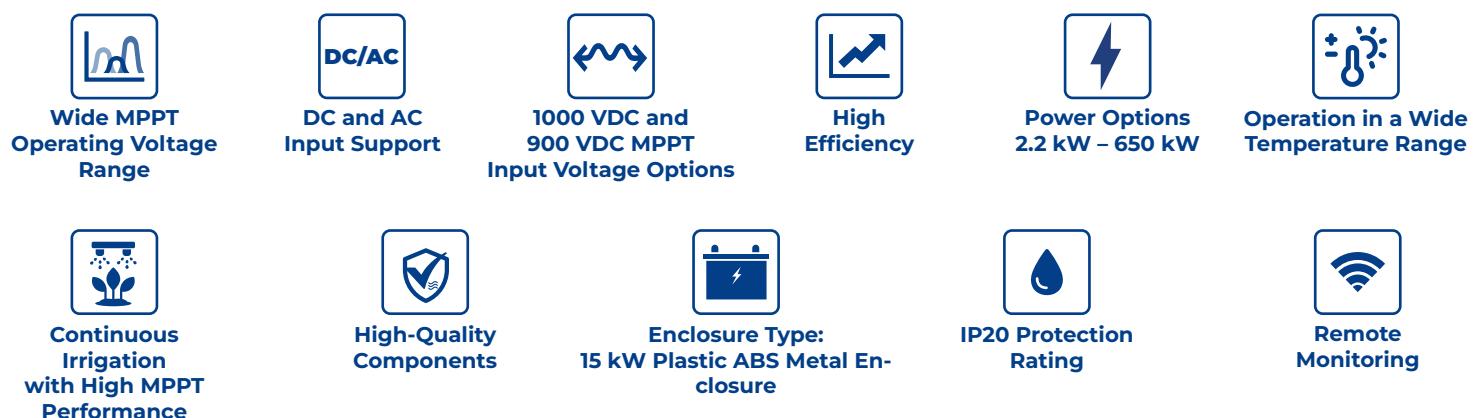
SPI-TT-2.2-MF

SPI-TT-2.2-TF - SPI-TT-250.0-TF

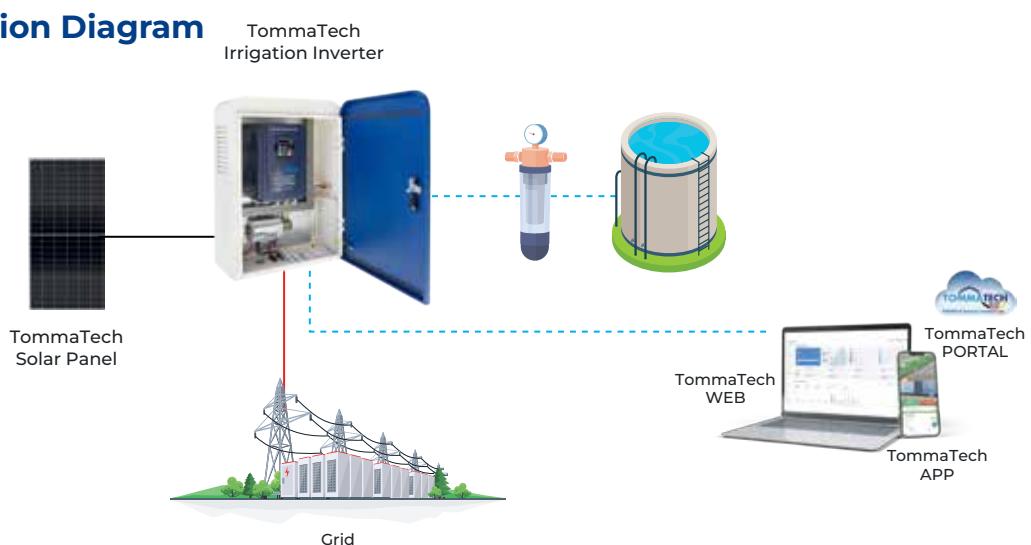
SPI-TT-250.0-TF - SPI-TT-650.0-TF (Custom Production)



## Product Features



## Connection Diagram



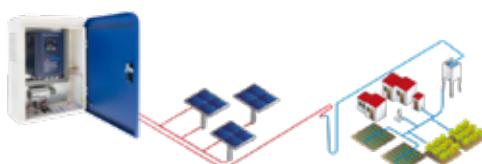
MODEL	230V Solar Pump Inverter	400V Solar Pump Inverter
Recommended DC Input Voltage Range	200V-400V	300V-750V
AC Input Voltage	220V(-15%) 240V(+10%)	380V(-15%) 440V(+10%)
Maximum DC Input Voltage	450V	900V
Start-up Voltage	200V	300V
Minimum Operating Voltage	150V	250V
Recommended MPPT Voltage	330V	550V



MODEL NO	INPUT VOLTAGE (V)	RATED POWER (kW)	RATED INPUT CURRENT (A)	RATED OUTPUT CURRENT (A)	COMPATIBLE MOTOR (kW)
SPI-TT-1.5-MF	1PH 230V	1.5	15.7	10.2	1
SPI-TT-2.2-MF		2.2	24	14	1.5
SPI-TT-1.5-TF		1.5	5	4.2	1.1
SPI-TT-2.2-TF		2.2	5.8	5.5	1.5
SPI-TT-4.0-TF		4	13.5	9.5	2.2
SPI-TT-5.5-TF		5.5	19.5	14	4
SPI-TT-7.5-TF		7.5	25	18.5	5.5
SPI-TT-11.0-TF		11	32	25	7.5
SPI-TT-15.0-TF		15	40	32	11
SPI-TT-18.5-TF		18.5	47	38	15
SPI-TT-22.0-TF		22	51	45	18.5
SPI-TT-30.0-TF		30	70	60	22
SPI-TT-37.0-TF		37	80	75	30
SPI-TT-45.0-TF		45	94	92	37
SPI-TT-55.0-TF		55	128	115	45
SPI-TT-75.0-TF		75	160	150	55
SPI-TT-90.0-TF		90	190	180	75
SPI-TT-110.0-TF		110	225	215	90
SPI-TT-132.0-TF		132	270	255	110
SPI-TT-160.0-TF		160	290	305	132
SPI-TT-185.0-TF		185	330	340	160
SPI-TT-200.0-TF		200	370	380	185
SPI-TT-220.0-TF		220	410	425	200
SPI-TT-250.0-TF		250	460	480	220

\* TommaTech GmbH reserves the right to change product specifications without prior notice.

\*\* Power options up to 650 kW are available upon request.





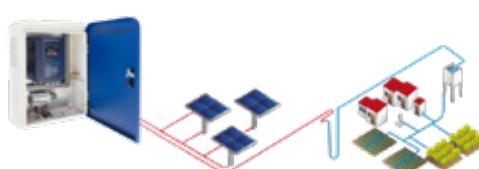
1.5 kW – 15 kW plastic enclosure



18.5 kW – 132 kW metal enclosure

MODEL NO	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	MOUNTING HOLE (D)
SPI-TT-1.5-MF						
SPI-TT-2.2-MF	110	170	180	120	154	4
SPI-TT-1.5-TF						
SPI-TT-2.2-TF						
SPI-TT-4.0-TF	148	240	250	161	184	5
SPI-TT-5.5-TF						
SPI-TT-7.5-TF	205	305	320	221	190	6
SPI-TT-11.0-TF						
SPI-TT-15.0-TF						
SPI-TT-18.5-TF						
SPI-TT-22.0-TF	176	455	467	290	230	6
SPI-TT-30.0-TF						
SPI-TT-37.0-TF						
SPI-TT-45.0-TF	230	565	580	375	270	6
SPI-TT-55.0-TF						
SPI-TT-75.0-TF	320	738	755	460	330	6
SPI-TT-90.0-TF						
SPI-TT-110.0-TF						
SPI-TT-132.0-TF	315	780	810	490	375	6
SPI-TT-160.0-TF	-	860	1200	550	385	vertical base
SPI-TT-185.0-TF						
SPI-TT-200.0-TF	-	950	1250	550	385	vertical base
SPI-TT-220.0-TF						
SPI-TT-250.0-TF	-	1020	1400	750	405	vertical base

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- **REMOTE MONITORING MODULE**
- **WATER LEVEL CONTROL**
- **DC AND AC POWER SUPPLY**
- **WIDE POWER RANGE**
- **CONTINUOUS IRRIGATION WITH HIGH MPPT PERFORMANCE**



# **TOMMATECH IRRIGATION INVERTER PRE-ASSEMBLED IRRIGATION BOX**

IP55 Protection Rating

## **Pre-assembled Irrigation Box**

The Pre-assembled Irrigation Box simplifies the electrical management of irrigation systems and optimizes overall system performance. This ensures that irrigation operations in agricultural areas are carried out more efficiently, safely, and in a more organized manner.

Irrigation panels can reduce both water usage and energy costs, thereby increasing agricultural productivity.

With an IP55 protection rating, it is resistant to dust and water.

Control via Switch: Pre-assembled irrigation boxes are equipped with a switch that allows the electrical current to be turned on and off. It controls the start and stop functions of the irrigation inverter.

Protection and Safety: It protects the irrigation inverter against external factors and various malfunctions, ensuring safe operation and extending the system's lifespan.

Power Supply and Distribution Units: They regulate the electrical current and manage the energy flow between the pump and the inverter.



## **Product Features**



High-quality components



Enclosure Type:  
Metal DKP Enclosure



IP55 Protection  
Rating



High  
Efficiency



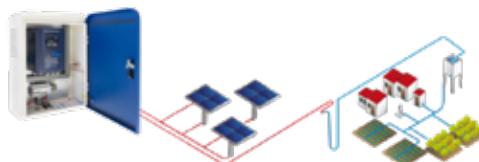
Power Options  
2.2 kW – 650 kW



Operation in a Wide  
Temperature Range



DC and AC  
Input Support



PRODUCT CODE	COMPATIBLE INVERTERS	PANEL DIMENSIONS (WIDTH-HEIGHT-DEPTH)	MOTOR-GRID UNION QUANTITY	NUMBER OF CONNECTOR HOLES	EMPTY PANEL WEIGHT
TS-PANO-TPA-00,75-5,5-2D	SPI-TT-2.2 MF SPI-TT-2.2 TF SPI-TT-4.0 TF SPI-TT-5.5TF	400x500x220	2 HOLES	2 HOLES	10 KG
TS-PANO-TPB-07,5-11-4D	SPI-TT-7.5 TF SPI-TT-11.0 TF	500x700x220	2 HOLES	4 HOLES	16 KG
TS-PANO-TPB-15-6D	SPI-TT-15.0 TF			6 HOLES	
TS-PANO-TPC-18,5-8D	SPI-TT-18.5 TF	600x850x270	2 HOLES	8 HOLES	22 KG
TS-PANO-TPC-22-10D	SPI-TT-22.0 TF			10 HOLES	
TS-PANO-TPC-30-12D	SPI-TT-30.0 TF	700x1000x310+200	2 HOLES	12 HOLES	
TS-PANO-TPD-37-16D	SPI-TT-37.0 TF			16 HOLES	28 KG
TS-PANO-TPD-45-20D	SPI-TT-45.0 TF	700x1000x310+200	2 HOLES	20 HOLES	
TS-PANO-TPD-55-24D	SPI-TT-55.0 TF			24 HOLES	
TS-PANO-TPE-75-32D	SPI-TT-75.0 TF	700x1000x310+200	2 HOLES	32 HOLES	100 KG
TS-PANO-TPE-90-40D	SPI-TT-90.0 TF			40 HOLES	
TS-PANO-TPE-110-48D	SPI-TT-110.0 TF	1150x1800x480+200	3 HOLES	48 HOLES	
TS-PANO-TPE-132-54D	SPI-TT-132.0 TF			54 HOLES	
TS-PANO-TPF-160-50D	SPI-TT-160.0 TF	1150x1800x480+200	3 HOLES	54 HOLES	200 KG

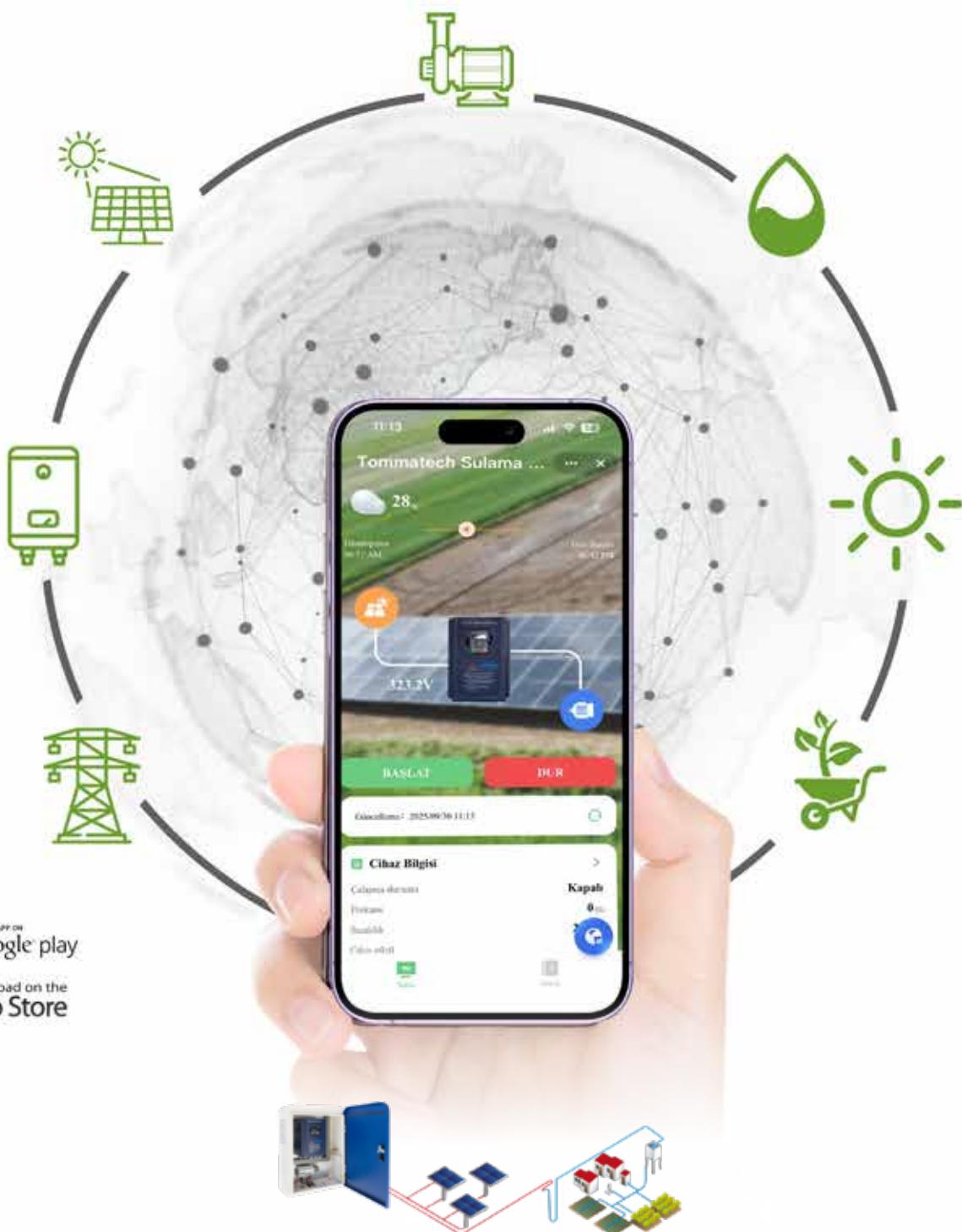
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## PORTAL

**EXPERIENCE**  
*the comfort of the future*



ANDROID APP ON  
Google play  
Download on the  
App Store

## “One Brand, One Application”

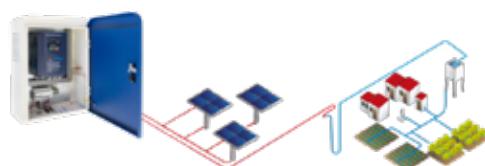
### Easy Operation

With the TommaTech Portal, you can easily monitor and control all your devices remotely through a single application. From the voltage and current values received from the panels to the charge level of your high-voltage battery, from your home's instantaneous power demand to the real-time consumption of your EV charger, and from selecting the operating mode of the hybrid inverter to adjusting the water temperature via the heat pump—numerous settings and remote monitoring functions can

### Easy Access

Thanks to various remote monitoring accessories, the system offers both wired and wireless monitoring options depending on the installation site.

You can easily log in from anywhere and at any time via WEB or APP. By logging in through the WEB interface, you can access detailed system data and generate daily, monthly, or yearly reports.





tommatech.de

