TOMMATECH GmbH

GERMAN-based company

AGRICULTURAL IRRIGATION SYSTEMS CATALOG





Garching - Munich Production Center / Germany



Antalya Production Center / Turkey

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TOMMATECH GmbH
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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.

Technology

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.

Optimization

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

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

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

Manufacturing

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.

Milestones

We are pioneering solar technology that plays a crucial role in contributing to energy indepenence 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.

Automation

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.

CE ISO SOMPO

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2014


60+


2

Transparency

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.

Experience

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.

Commitment

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.

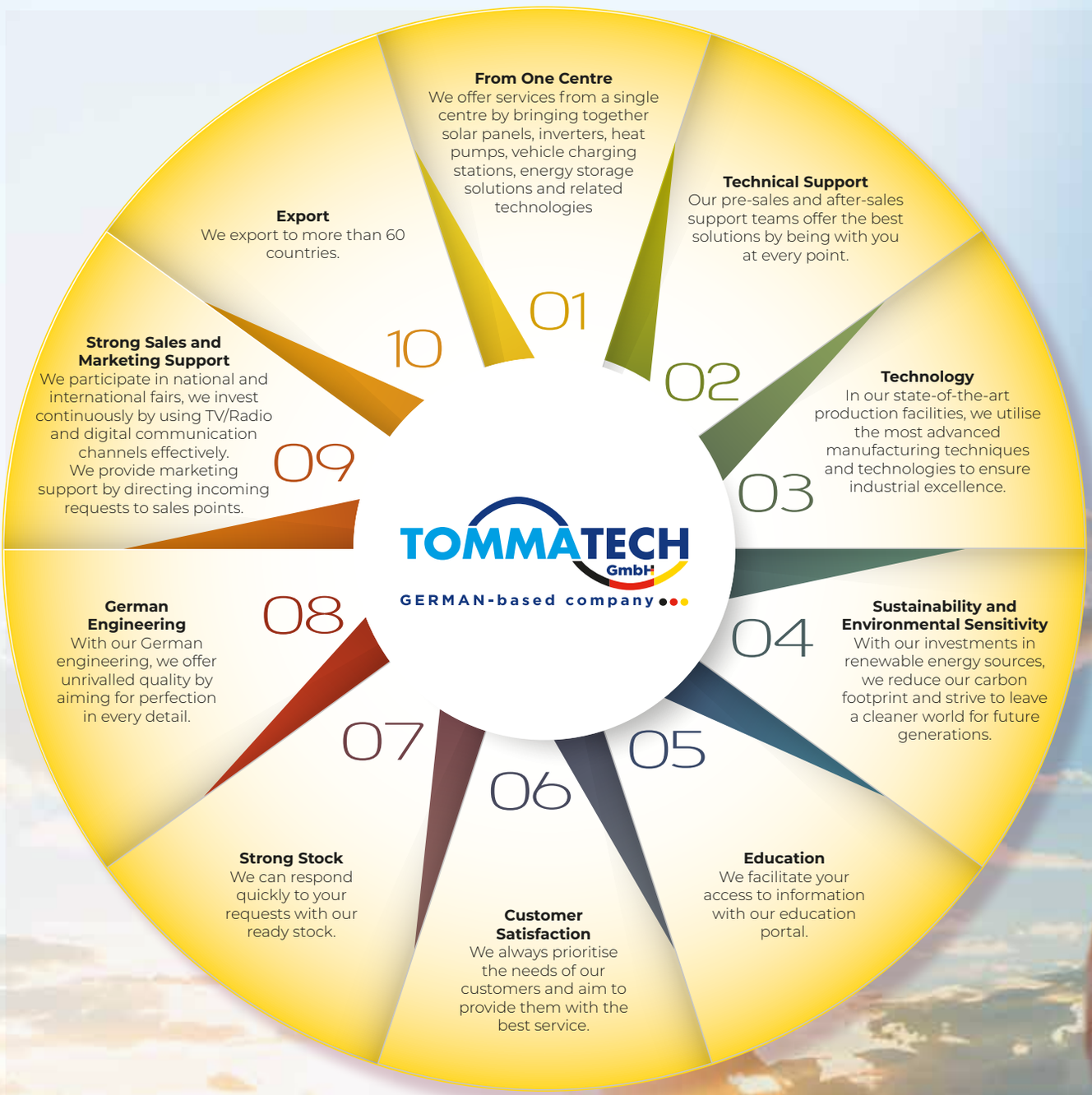
Home Solution

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 custmers 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.

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with TommaTech

You are in control!

TT-UM002-005

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CLOUD



1 PV Panel

2 BIPV Veranda

3 Carport

7 EV Charging Unit

8 Pool Heat Pump

9 Power Series Heat Pump

CW ALÜMİNYUM
Manufactured with Infrastructure

TOMMATECH
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Cloud



"Experience the Comfort of the Future."
With TommaTech Cloud, the control of your home is at your fingertips.

13 Thermal Panel

14 Boiler Tank

15 Circulation Pump

19 Control Panel

20 Alarm Panel

21 Solar Camera

4 Inverter

5 Lithium Battery

6 Smart Meter

10 Fan Coil Heating & Cooling

11 Underfloor Heating

12 Hot Water

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16 White Goods

17 Built-in Set

18 Built-in Coffee Machine

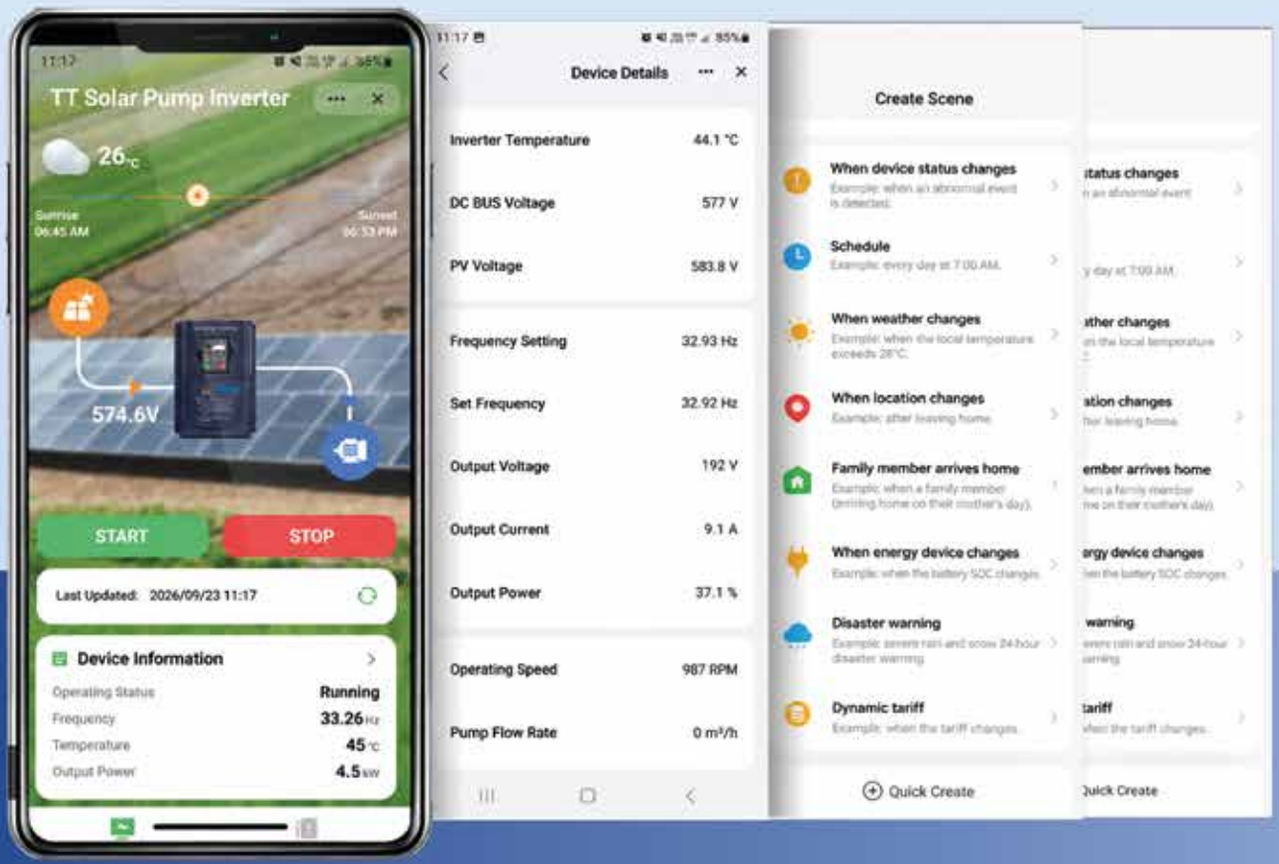
22 Sensors

23 Wi-Fi Socket

24 Hydrogen Systems

TOMMATECH GmbH
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CLOUD

Generate Your Home's Energy, Manage Your Comfort One Place.



Scenarios and Automation

Real-Time Monitoring

Remote Access

Artificial Intelligence

Compatible with Voice Assistant

Download on the App Store

Get in on Google Play

"One Brand, One Application"

TommaTech Cloud

Easy Operation

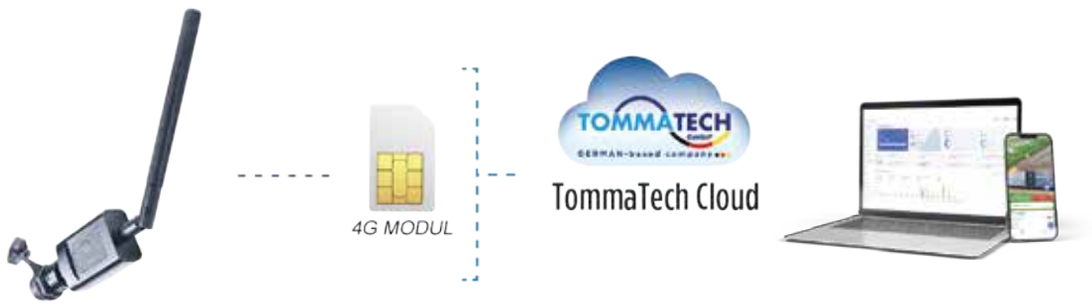


With TOMMATECH CLOUD, you can easily monitor and control your irrigation system remotely . By accessing real-time data of your system such as voltage, current, frequency, power, and temperature, you can track your irrigation inverter. Thanks to remote access, without going to the field, you can change inverter parameters, track error codes, and create irrigation scenarios. Thus, you can manage your irrigation processes more controllably and efficiently according to your needs.

Easy Access



Thanks to remote monitoring accessories, you can easily log into your solar irrigation system via WEB or APP from anywhere and at any time.
By logging in via WEB and accessing the detailed data of your system, you can create daily, monthly, or yearly reports.



WHAT IS A SOLAR IRRIGATION INVERTER?

TommaTech Solar Pump Inverter is a special inverter series that converts the DC Voltage from solar energy into AC to operate water pumps working with 220V/230V Single-Phase or 380V/400V Three-Phase, and enables the pump motor to start up with its internal driver circuit.

HOW DOES A SOLAR IRRIGATION INVERTER WORK?

TommaTech Solar Pump Inverters are a special inverter series that operates water pumps running on 220V/230V single-phase or 380V/400V three-phase by converting the DC voltage from solar energy into AC and enabling the pump motor to start up via its internal driver circuit. TommaTech irrigation inverters are specially produced for solar irrigation systems and have a high MPPT voltage.

The instantaneous power obtained from the solar panels is converted into the necessary signals to operate the pump motor via the irrigation inverter and transmitted to the motor. By adjusting the torque or rotational speed of the pump shaft according to the instantaneous power consumed by the pump via the drive circuit in the inverter, it delivers water at a low flow rate during the morning and evening hours, and at a high flow rate at noon.

Water drawn from a deep well or surface water can be used immediately or, if desired, stored in a suitably sized tank to be used for evening or night irrigation using the AC voltage drawn from the grid via the AC input of the inverter.

WHY SOLAR IRRIGATION INVERTER?

- High-quality components and durable outer casing
- Possibility to connect more panels thanks to high input voltage
- High performance capability in cloudy weather with advanced MPPT algorithm
- Wide operating temperature range: -40/+70Co Irrigation inverter specially produced for irrigation projects

WHERE IS A SOLAR IRRIGATION INVERTER USED?

- Agricultural Irrigation Projects
- Drinking Water Treatment & Discharge
- Pool Water Discharge Ornamental
- Pools and Other Applications

WHEN IS A SOLAR IRRIGATION INVERTER USED?

It is used to reduce energy costs by utilizing solar energy during periods of agricultural irrigation demand; when needed, it can also operate as a hybrid with grid electricity.

WHO USES A SOLAR IRRIGATION INVERTER?

It is used by farmers engaged in agricultural production, greenhouse operations, orchard and vineyard owners, and agricultural enterprises wanting to reduce irrigation costs or irrigate in areas where grid electricity is unavailable.

SOLAR IRRIGATION INVERTER ADVANTAGES

Renewable and Environmentally Friendly Energy Solar energy is a renewable energy source. Solar irrigation systems contribute to reducing carbon emissions by decreasing the need for fossil fuel-based energy and support environmentally friendly agricultural production.

Off-Grid or Hybrid Operation Capability While offering off-grid irrigation capability in areas where the electrical grid is unavailable, its hybrid operation feature allows the use of alternative energy sources such as grid electricity when sunlight is insufficient or unavailable.

Operation in Variable Sunlight Thanks to MPPT (Maximum Power Point Tracking) technology, it ensures maximum utilization of the power that solar panels can generate under varying irradiance and temperature conditions.

Soft Start and Controlled Motor Operation By ensuring the controlled startup of the pump, it helps limit the high current during the initial startup. This feature reduces sudden strains on the motor and mechanical system.

Motor and Pump Protection Functions The inverter helps protect the system against conditions such as overcurrent, overvoltage, undervoltage, and overtemperature. Additional functions like dry run protection can reduce the risk of damage to the pump in conditions where water is insufficient.

Supporting Agricultural Efficiency. It provides an advantage to producers by facilitating access to the energy required for irrigation, especially in lands with insufficient electrical infrastructure.

SINGLE-PHASE IRRIGATION INVERTER



SINGLE-PHASE (MF)
SPI - TT - 2.2- MF

THREE-PHASE IRRIGATION INVERTERS



THREE-PHASE (TF)
SPI-TT-2.2-TF - SPI-TT-250.0-TF
SPI-TT-250.0-TF - SPI-TT-650.0-TF

PRE-ASSEMBLED IRRIGATION CONTROL BOX



IP55 Galvanized Irrigation
Control Panel
2.2kW-15kW



IP55 Galvanized Irrigation
Control Panel
18.5kW – 250kW

IRRIGATION INVERTER ACCESSORIES



TommaTech Irrigation 4G Communication Device



Diode





Uninterrupted Irrigation with Solar Energy

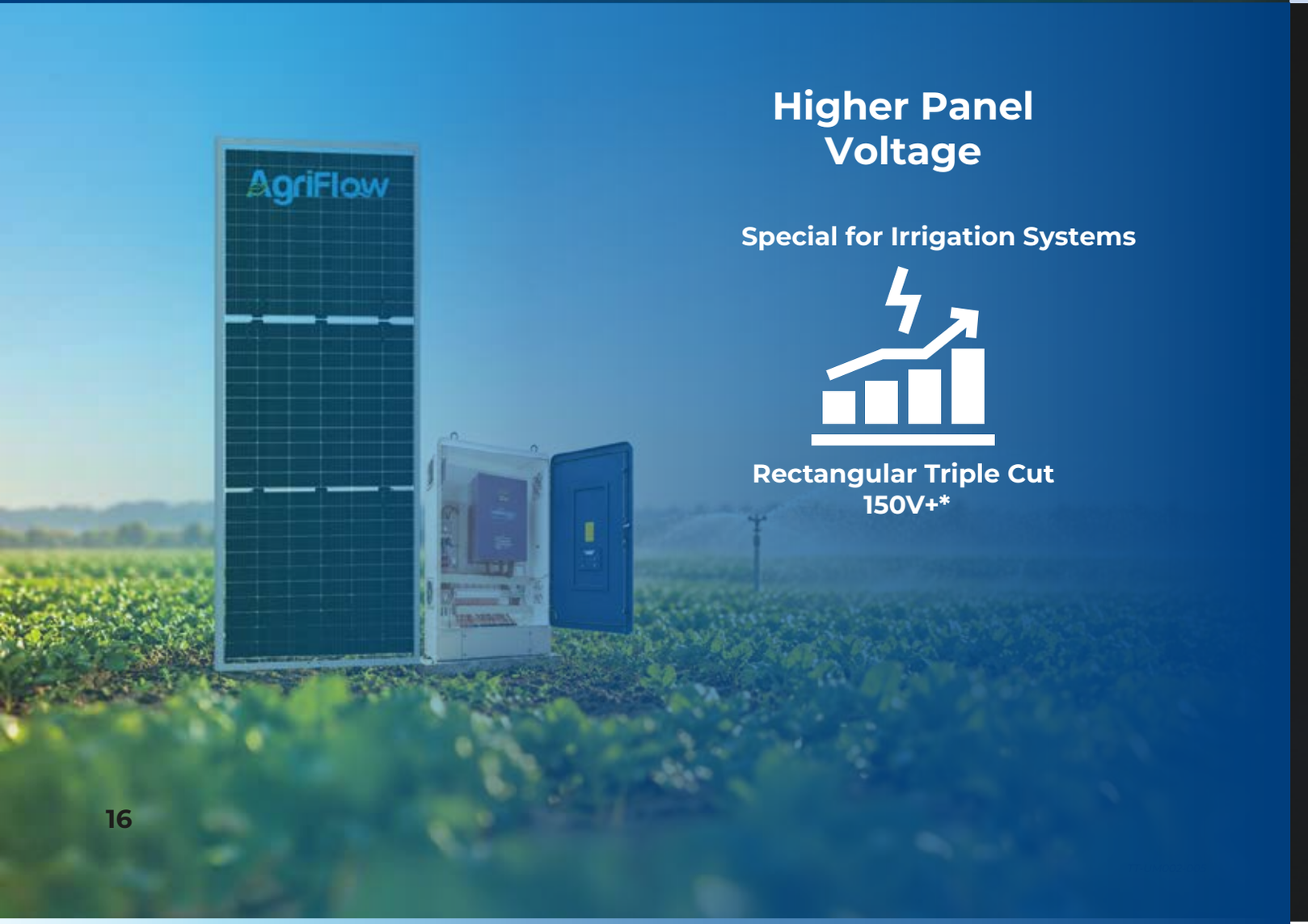
Easy Operation Water Level Control Remote Monitoring via GPRS



Higher Panel Voltage

Special for Irrigation Systems

Rectangular Triple Cut 150V+*



Power from the Sun,
Efficiency in Irrigation!

2.2 kW-250kW



At the Center of Irrigation

Ready Irrigation Box

A practical solution combining the control of your irrigation system in a single box.



TommaTech Solar Pump Inverter





Maximum Irrigation Performance

Energy from the sun, life reaching the soil.

Long Operation Time Capability

Thanks to its wide MPPT algorithm, it provides longer operation time compared to competitors, even at low irradiance levels.

Remote Monitoring

Your irrigation system is under your control anytime, anywhere.

AC & DC Power Supply

with the hybrid operation option, at any time of the day uninterrupted irrigation capability.

TOMMATECH SOLAR IRRIGATION INVERTER

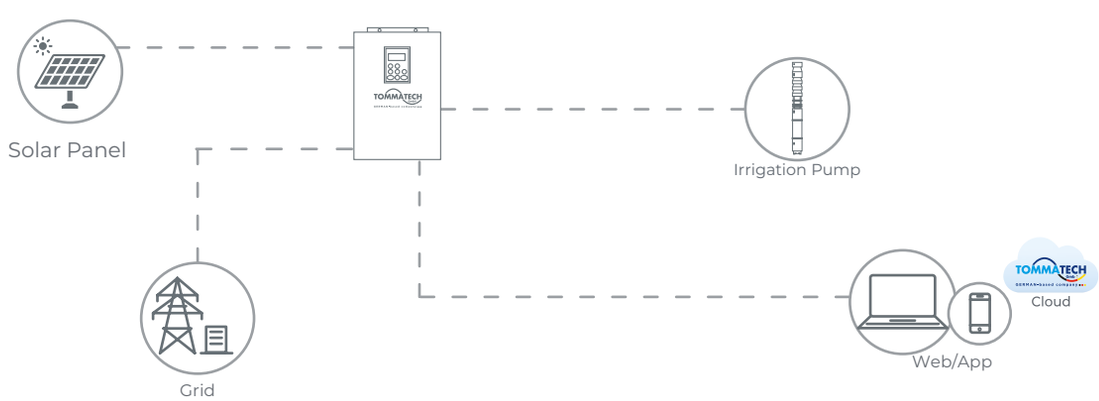
SPI-TT-2.2-MF / SPI-TT-2.2-TF - SPI-TT-250.0-TF
SPI-TT-250.0-TF -SPI-TT-650.0-TF (Custom Production)



Product Features

- Wide MPPT Voltage Range
- DC and AC Input Support
- 1000VDC MPPT and 900VDC MPPT Input Voltage Options
- High Efficiency
- 2.2 kW – 650 kW Power Options
- Operation in a Wide Temperature Range
- Uninterrupted Irrigation Capability with High MPPT
- High Quality Component
- Enclosure Type: 2.2kW - 15kW ABS Plastic 18.5kW - 250kW Metal Enclosure
- 3 Year Product Warranty
- IP20 Protection Class
- Remote Monitoring

Connection Diagram



Recommended DC Input Voltage Range	200V-400V	300V-750V
AC Input Voltage	220V(-15%) / 240V(-10%)	380V(-15%) / 400V(-10%)
Maximum DC Input Voltage	450V	900V
Startup Voltage	200V	300V
Minimum Operating Voltage	150V	250V
Recommended MPPTY Voltage	330V	550V

MODEL	INPUT VOLTAGE	NOMINAL POWER (kW)	NOMINAL INPUT CURRENT (A)	NOMINAL OUTPUT CURRENT (A)	COMPATIBLE MOTOR (kW)	WIDTH-LEN HEIGHT (mm)
SPI-TT-1.5-MF	1PH 230V	1.5	15.7	10.2	1	120 × 180 × 154
SPI-TT-2.2-MF	3PH 400V	2.2	24	14	1.5	120 × 180 × 154
SPI-TT-1.5-TF	3PH 400V	1.5	5	4.2	1.1	120 × 180 × 154
SPI-TT-2.2-TF	3PH 400V	2.2	5.8	5.5	1.5	120 × 180 × 154
SPI-TT-4.0-TF	3PH 400V	4	13.5	9.5	2.2	120 × 180 × 154
SPI-TT-5.5-TF	3PH 400V	5.5	19.5	14	4	161 × 250 × 184
SPI-TT-7.5-TF	3PH 400V	7.5	25	18.5	5.5	221 × 320 × 190
SPI-TT-11.0-TF	3PH 400V	11	32	25	7.5	221 × 320 × 190
SPI-TT-15.0-TF	3PH 400V	15	40	32	11	221 × 320 × 190
SPI-TT-18.5-TF	3PH 400V	18.5	47	38	15	290 × 467 × 270
SPI-TT-22.0-TF	3PH 400V	22	51	45	18.5	290 × 467 × 270
SPI-TT-30.0-TF	3PH 400V	30	70	60	22	290 × 467 × 270
SPI-TT-37.0-TF	3PH 400V	37	80	75	30	290 × 467 × 270
SPI-TT-45.0-TF	3PH 400V	45	94	92	37	375 × 580 × 270
SPI-TT-55.0-TF	3PH 400V	55	128	115	45	375 × 580 × 270
SPI-TT-75.0-TF	3PH 400V	75	160	150	55	460 × 755 × 330
SPI-TT-90.0-TF	3PH 400V	90	190	180	75	460 × 755 × 330
SPI-TT-110.0-TF	3PH 400V	110	225	215	90	460 × 755 × 330
SPI-TT-132.0-TF	3PH 400V	132	270	255	110	490 × 755 × 375
SPI-TT-160.0-TF	3PH 400V	160	290	305	132	550 × 810 × 385
SPI-TT-185.0-TF	3PH 400V	185	330	340	160	550 × 1200 × 385
SPI-TT-200.0-TF	3PH 400V	200	370	380	185	550 × 1250 × 385
SPI-TT-220.0-TF	3PH 400V	220	410	425	200	550 × 1250 × 385
SPI-TT-250.0-TF	3PH 400V	250	460	480	220	750 × 1400 × 405

TOMMATECH IRRIGATION
INVERTER READY IRRIGATION BOX
IP55 Protection Class



Product Features

- **High Quality Component**
- **Enclosure Type: Galvanized Enclosure DKP Metal Cover**
- **IP20 Protection Class**
- **High Efficiency**
- **2.2 kW – 650 kW Power Options**
- **Operation in a Wide Temperature Range**
- **DC and AC Input Support**
- **2 Years Product Warranty**

Ready Irrigation Box, facilitates electrical control and energy management in irrigation systems, contributing to the safe and efficient maintenance of system performance. It helps irrigation operations in agricultural areas to be carried out in a regular and controlled manner.

Thanks to its IP55 protection class, it provides resistance against dust and water, offering safe use in harsh field conditions.

Switch Control: Switches enable the opening and closing of the electrical flow, controlling the activation of the irrigation inverter and its deactivation. At the same time, they allow the system's energy to be safely cut off when necessary, acting as an additional safety measure.

Protection and Safety: Thanks to the switchgear and protection equipment inside, it helps protect the irrigation inverter against electrical risks and various faults.

Power and Distribution Units: It ensures that electrical energy is distributed regularly within the system and the energy flow between the pump and the inverter is managed.

PRODUCT CODE	COMPATIBLE WITH INVERTERS	PANEL DIMENSIONS	MOTOR GRID NUMBER OF GLANDS	CONNECTOR NUMBER OF HOLES	PANEL WEIGHT
TS-PANO-TPA-00,75-5,5-2D	SPI-TT-02-2.2-MF - SPI-TT-06-5.5-TF	500x700x220	2 HOLES	2 HOLES	15 KG
TS-PANO-TPB-07,5-11-4D	INV-SLM-TF-V2-7.5KW - INV-SLM-TF-V2-15KW	500x700x220	2 HOLES	4 HOLES	25 KG
TS-PANO-TPB-15-6D	INV-SLM-TF-V2-15KW	500x700x220	2 HOLES	6 HOLES	25 KG
TS-PANO-TPC-18,5-8D	SPI-TT-10-18.5-TF	600x850x270	2 HOLES	12 HOLES	45 KG
TS-PANO-TPC-22-10D	SPI-TT-11-22.0-TF	600x850x270	2 HOLES	12 HOLES	45 KG
TS-PANO-TPC-30-12D	SPI-TT-12-30.0-TF	600x850x270	2 HOLES	12 HOLES	45 KG
TS-PANO-TPD-37-16D	SPI-TT-13-37.0-TF	700x1000x310+200	2 HOLES	24 HOLES	55 KG
TS-PANO-TPD-45-20D	SPI-TT-14-45.0-TF	700x1000x310+200	2 HOLES	24 HOLES	80 KG
TS-PANO-TPD-55-24D	SPI-TT-15-55.0-TF	700x1000x310+200	2 HOLES	24 HOLES	80 KG
TS-PANO-TPE-75-32D	SPI-TT-16-75.0-TF	700x1000x310+200	2 HOLES	54 HOLES	195 KG
TS-PANO-TPE-90-40D	SPI-TT-17-90.0-TF	700x1000x310+200	2 HOLES	54 HOLES	195 KG
TS-PANO-TPE-110-48D	SPI-TT-18-110.0-TF	700x1000x310+200	2 HOLES	54HOLES	195 KG
TS-PANO-TPE-132-54D	SPI-TT-19-132.0-TF	700x1000x310+200	2 HOLES	54 HOLES	195 KG
TS-PANO-TPF-160-60D	SPI-TT-20-160.0-TF	1150x1800x480+200	2 HOLES	60 HOLES	325 KG
TS-PANO-TPF-185-60D	SPI-TT-21-185.0-TF	1150x1800x480+200	2 HOLES	60 HOLES	325 KG
TS-PANO-TPF-250-70D	SPI-TT-22-250.0-TF	1134x2200x480+200	2 HOLES	70 HOLES	465 KG

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

Protection & Control

- AC Miniature Circuit Breaker
- DC Fuse and Cartridge
- On-Off Switch

Distribution & Connection

- Grid Terminal
- Output Terminal
- Grounding Terminal

Control & Protection

- Diode
- DC Input Reactor
- Panel Fan
- Thermostat

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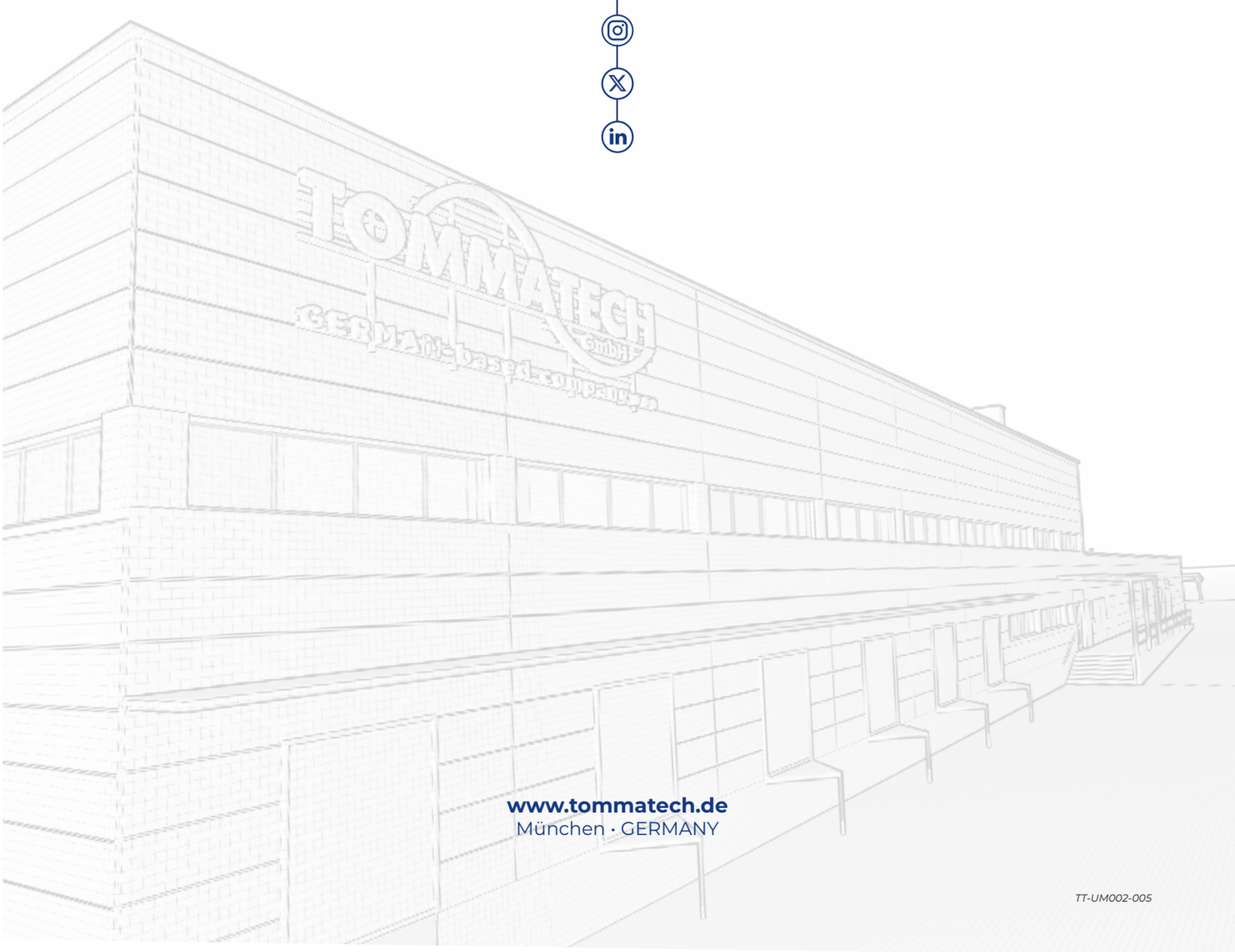
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