TOMMATECH GmbH

GERMAN-based company

ON-GRID INVERTER

Catalogue

Garching - Münih Manufacturing Facility / Germany

Antalya Manufacturing Facility / 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.

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 costs."

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 techno- logy 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+

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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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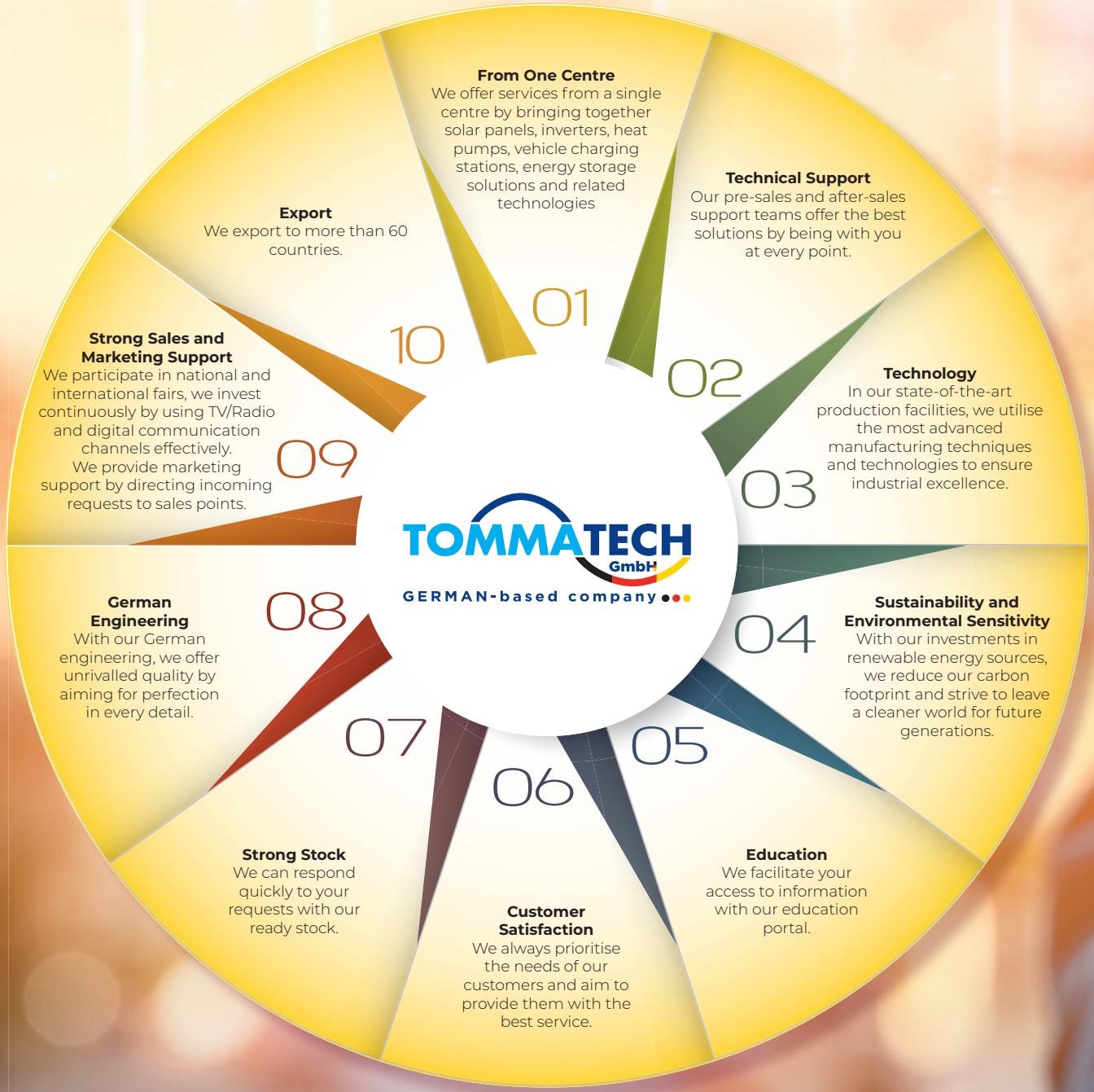

with TommaTech

You are in control!

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ON-GRID

Micro S

Uno Atom

Uno Home

Trio Atom K

Trio Plus K

HYBRID

Uno Hybrid K

Trio Hybrid K

Trio Hybrid M

BATTERY

Hightech Power 3.0kWh

Hightech Power 5.8kWh

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ESS

Cabinet 60kWh-M50k

Cabinet 232KWH-100KW-LC

ACCESSORIES

Dongle

Smart Meter

EPS Box

Smart Controller

Heatpump Controller

Booster Paralel Box

ENERGY MANAGEMENT SYSTEM

TommaTech Portal

WHAT ARE ON-GRID AND HYBRID INVERTER?

TommaTech next generation On-Grid inverters convert DC electricity from the panels into AC electrical energy and power your home from the sun. TommaTech grid-connected inverters provide unrivaled performance and allow you to harvest the maximum possible amount of energy from solar panels. Hybrid inverters are different from other inverters used in solar energy systems because they come with a battery charger and battery management system. This way, when the solar panels produce excess energy, the energy can be stored in the batteries and used later when needed.

HOW DO ON-GRID AND HYBRID INVERTERS WORK?

DC electrical energy is generated when the sun rays coming from the atmosphere come into contact with the solar panels. The generated energy is connected to the central city grid system with On-Grid inverters that have high conversion power and can be connected to the central grid. Thus, the energy produced from the panels is sent directly to the grid system. If the area and irradiation conditions are suitable, it is possible to provide the desired power of electrical energy production with the grid-connected electricity generation system. Compared to On-Grid inverters, hybrid inverters can also be used during power outages. The energy stored thanks to special lithium batteries can provide uninterrupted energy for homes and businesses during power outages with its external output called EPS (Emergency Power Suply). Hybrid inverters are an important technology that increases the efficiency of renewable energy systems and provides energy independence.

WHY ON-GRID AND HYBRID INVERTER?

On-Grid systems are very advantageous in terms of minimising electricity bills in residential and commercial areas. It can also be used to generate additional income with sales transactions. Hybrid inverters can be used even if the electricity is cut thanks to their storage advantage.

WHERE ARE ON-GRID AND HYBRID INVERTERS USED?

It is used in factories, workplaces and residences with high electricity bills.

ADVANTAGES OF ON-GRID INVERTER

- Since storage units such as batteries will not be used in the system, there is no additional cost for storage.
- Since the system is grid-connected, the grid will be activated when the instantaneous generated energy is not enough and the loads can be fed uninterruptedly.
- It provides ease of remote monitoring.
- It has easy installation and assembly.
- When designing the system, it has the flexibility to design according to the desired amount or area, since there is no obligation to meet the entire load.
- If the area is sufficient, the installed capacity of the system can be increased.

ADVANTAGES OF HYBRID INVERTER

- Hybrid inverters have redundant power capacity, thus ensuring uninterrupted power under all conditions.
- It can operate in both on-grid and off-grid systems.
- In addition to its storage capacity, it has high efficiency.
- It provides your electricity from the sun, batteries and the grid.
- It can be used as an off-grid solar energy system in case of power outage.
- It provides ease of remote monitoring.
- They have easy installation and assembly.

TOMMATECH MONO PHASE MICRO INVERTER S SERIES

Micro S 800 W

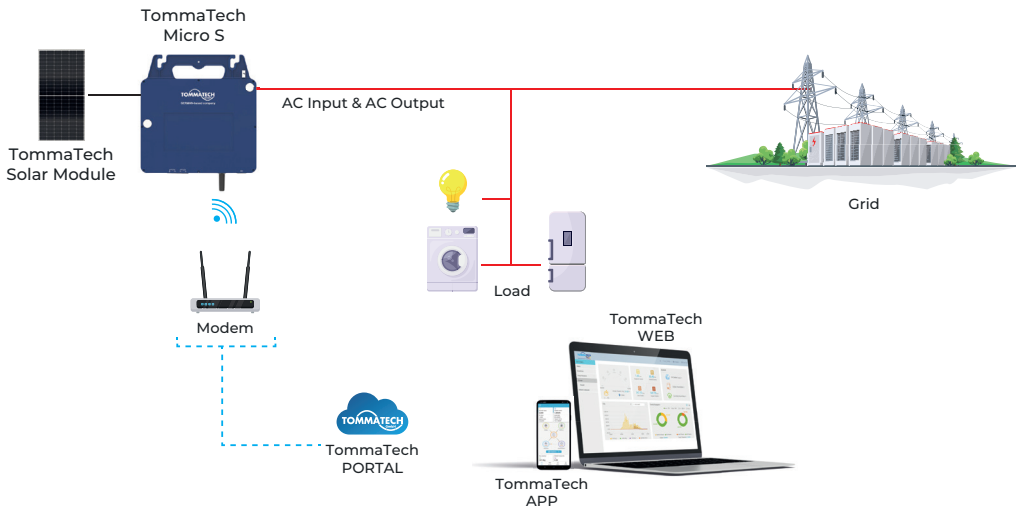
Micro S

The TommaTech Micro Inverter S-Series is recognised for its exceptional power output and is one of the most popular 2-in-1 microinverters, offering an impressive capacity of up to 800 VA. Designed specifically for the latest and previous generations of high-power modules, these microinverters feature two independent MPPTs and strong support for input current and output power. Seamlessly integrating wireless Wi- Fi technology, the TommaTech Micro Inverter S-Series provides users with reliable and consistent communication, enabling a seamless monitoring and control experience. Offering a cost-effective solution, these microinverters are well suited for both residential and commercial solar applications. They are also fully compatible with TommaTech Hybrid solutions and can be seamlessly integrated with a variety of commercially available AC connected systems, increasing their versatility and adaptability.

Product Features

- High Efficiency
- Plug / Play
- Remote Monitoring
- Operation in Wide Temperature Range
- 1 Phase AC Output
- Small and Lightweight Design
- IP67 Protection
- Natural Cooling
- 2 MPPT / 2 Array Input
- 10 years Warranty

Connection Diagram



MODEL	ONG-TT-MKR-800W
DC INPUT	
Recommended PV Input Capacity [W]	320 to 540+
Max. PV Input Voltage [V]	60
MPPT Voltage Range [V]	22-60
Start Voltage [V]	20
Max. PV Input Current [A]	2 × 15A
Max. Input Short Circuit Current Isc [A]	2 × 20A
Number of MPPT	2
MPPT Array Input Number	1/ 1
AC OUTPUT	
Rated AC Output Power [VA]	800
Nominal Mains Voltage/Range [V]	220 or 230 or 240 / 180-275
Nominal AC Output Current [A]	3.64 / 3.48 / 3.33
Nominal AC Frequency/Range [Hz]	50 / 45–55 or 60 / 55–65
Maximum Units per Branch 25A	6 / 7 / 7
Power Factor Range (Adjustable)	>0.99(-0.8~0.8 adjustable)
THDi (Rated Power) [%]	< 3%
EFFICIENCY	
Max. Efficiency	96.50%
Nominal MPPT Efficienc	99.9%
Night Power Consumption [mW]	40
STANDARD	
Safety	IEC62109-1/-2, IEC61000-6-1/-2/-3-4, IEC61000-3-2, IEC61000-3-3,IEC 61727, IEC 62116, IEC 61683
Grid Connection Standard	EN50549-1:2019,VDE-AR-N 4105: 2018, VFR 2019,RD1699:2011,CEI 0-21:2019,ABNT NBR 16149, ABNT NBR 16150,AS/NZS 4777.2:2015
ENVIRONMENT CONDITIONS	
Protection Class	IP67 (NEMA 6)
Operating Environment Temperature Range [°C]	-40 ~ 65°C
Humidity [%]	0 ~ 100 (Condensing)
Storage Temperature [°C]	-40°C ~ 65°C
GENERAL	
Dimensions(W x H x D) [mm]	260 × 210 × 40
Weight [kg]	3.1
Cooling Method	Natural Convection
Communication	Internal Wi-Fi
Monitoring	TommaTech Portal

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

TOMMATECH UNO ATOM SERİSİ TEK FAZ DİZİ İNVERTER

UNO ATOM 0.6 - 3.6 kW

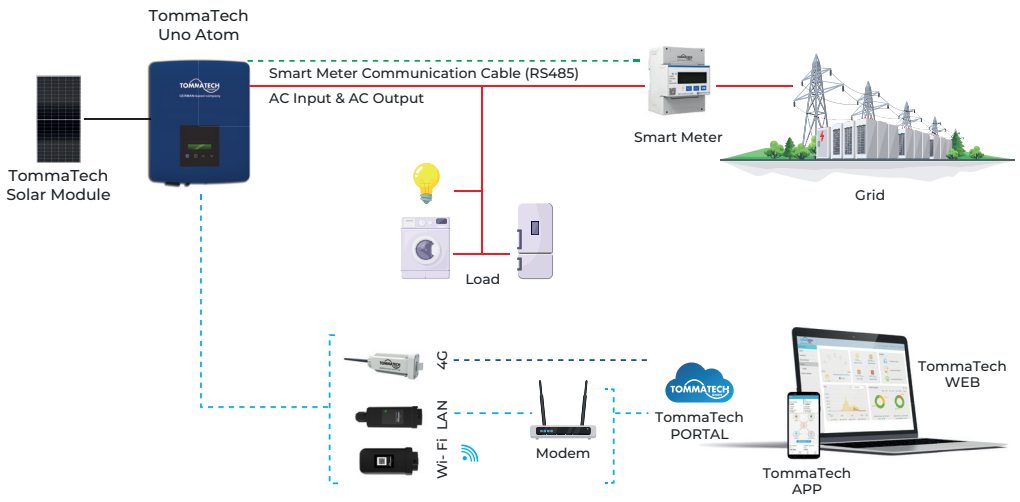
Uno Atom

TommaTech Uno Atom Serisi Tek Faz Dizi İnverterleri, daha küçük güneş paneli dizileri için tasarlanmış ve geliştirilmiştir. %98'lik maksimum verimlilik ve 50V'luk düşük devreye girme voltajı ile Uno-Atom İnverterler, üst düzey performans sağlayarak güneş enerjisi sisteminizden mümkün olan maksimum enerji miktarını üretmeye yardımcı olur. Ayrıca IP66 koruma sertifikası ürünün kurulum ve kullanım alanları noktasında esneklik sağlar.

Product Features

- **High Efficiency**
- **Switching on at Low Voltage**
- **Remote Monitoring**
- **Operation in Wide Temperature Range**
- **1 Phase AC Output**
- **Small and Lightweight Design**
- **IP66 Protection**
- **Natural Cooling**
- **1 MPPT / 1 ARRAY Input**
- **10 Years Warranty**

Connection Diagram



MODEL	Uno-A-0.6	Uno-A-0.7	Uno-A-1.1	Uno-A-1.5	Uno-A-2.0	Uno-A-2.5	Uno-A-3.0	Uno-A-3.3	Uno-A-3.6
DC INPUT									
Maximum PV Array Power [Wp]	900	1050	1650	900	3000	3750	4500	4950	5400
Maximum DC Voltage [V]	450			450			550		
Nominal DC Operating Voltage [V]	360			360			360		
Maximum Input Current [A]	14			14			14		
Maximum Short Circuit Current [A]	16			16			16		
MPPT Voltage Range [V]	45-430			50-430			55-530		
Switch-on Voltage [V]	50			50			70		
MPPT Number	1			1			1		
MPPT Sequence Input Number Voltage	1			1			1		
AC OUTPUT									
Rated AC Power [VA]	600	700	1100	1500	2000	2500	3000	3300	3680
Maximum AC Apparent Power [VA]	660	770	1210	1650	2200	2750	3300	3330	3680
Nominal Mains Voltage [V]	220/230/240; 180~280								
Nominal Mains Frequency [Hz]	50/60								
Nominal AC Current [A]	2.61	3.04	4.78	6.52	8.7	10.8	13.04	14.3	16.0
Maximum AC Current [A]	2.81	3.3	5.3	7.2	9.6	11.9	14.3	14.3	16.0
Displacement Power Factor	0.8 Front ~ 0.8 Back								
Total Harmonic Distortion (THDi), Rated Power [%]	<3								
EFFICIENCY									
MPPT Efficiency [%]	95.0	95.0	95.5	96.0	99.9	96.5	96.5	96.5	96.5
European Efficiency [%]	96.5								
Maximum Efficiency [%]	98.0								
POWER CONSUMPTION									
Standby Mode Consumption [W]	0								
STANDARD									
High Voltage Protection	Yes								
High Current Protection	Yes								
DC Isolation Impedance Monitoring	Yes								
Earthing Current Fault Monitoring	Yes								
DC Current Injection Monitoring	Yes								
Residual Current Relay Protection	Yes								
Safety	IEC62109-1/-2								
Electromagnetic Compatibility (EMC)	EN61000-6-1/2/3/4;EN61000-3-2/3/11/12								
ENVIRONMENT CONDITIONS									
Protection Class(based On IEC60529)	IP66								
Operating Environment Temperature Range [°C]	-25~+60 (Yeild Loss>45)								
Maximum Operating Altitude (Altitude) [m]	≤2000								
Humidity [%]	0~100 (Non-condensing)								
Storage Temperature [°C]	-30~+70								
Noise Emission [dB]	<30								
PHYSICAL FEATURES									
Dimensions(W x H x D) [mm]	267x328x116								
Weight [kg]	6								
Cooling Method	Natural								
Topology	Unisolated								
Communication Interface	RS485 / USB - Update / Optional: Mobile Wi-Fi / Mobile LAN / Remote Wi-Fi / Uno Smart Meter								
LCD Screen	Evet								
Standard warranty [Yıl]	10 Years (5 Years Product + 5 Years Spare Part)								

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TOMMATECH UNO HOME SERIES
SINGLE PHASE SERIES INVERTER

UNO HOME 3.0 - 6.0 kW

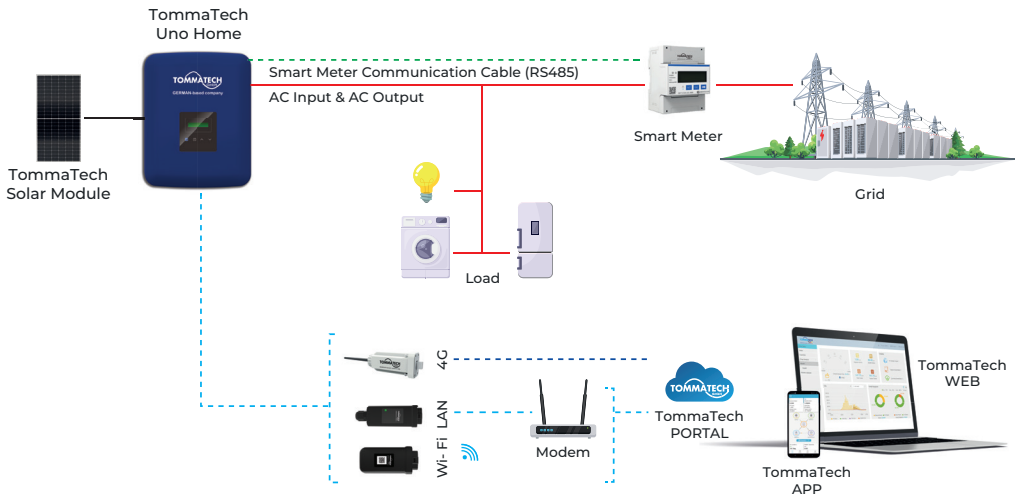
Uno Home

TommaTech Uno Home Series Single Phase Series Inverters stand out among its competitors in terms of quality, reliability and efficiency. Available in single phase with 8 power options between 3 kW and 6 kW, the model offers a wide MPPT voltage range from 70 V to 580 V, providing a maximum efficiency of 97.8%, enabling the highest level of solar energy generation. TommaTech Uno Home, which does not need an internal fan, also has IP66 protection class certification. In addition, inverters are also available with Wi-Fi option for remote monitoring.

Product Features

- High Efficiency
- Switching on at Low Voltage
- Remote Monitoring
- Operation in Wide Temperature Range
- 1 Phase AC Output
- Small and Lightweight Design
- IP66 Protection
- Natural Cooling
- 2 MPPT / 2 ARRAY Input
- 10 Years Warranty

Connection Diagram



MODEL	Uno-H-3.0	Uno-H-3.3	Uno-H-3.6	Uno-H-4.2	Uno-H-4.6	Uno-H-5.0	Uno-H-5.5	Uno-H-6.0
DC INPUT								
Maximum PV Array Power [Wp]	4500	4950	5400	6300	6900	7500	8250	9000
Maximum DC Voltage [V]	600							
Nominal DC Operating Voltage [V]	360							
Maximum Input Current [A]	14/14							
Maximum Short Circuit Current [A]	16/16							
MPPT Voltage Range [V]	70~580							
Switch-on Voltage [V]	100							
Number of MPPT	2							
MPPT Array Input Count	1/1							
AC OUTPUT								
Nominal AC Power [VA]	3000	3300	3680	4200	4600	5000	5500	6000
Maximum AC Apparent Power [VA]	3300	3630	4080	4620	5060	5500	6050	6600
Nominal Mains Voltage [V]	220/230/240; 180~280							
Nominal Mains Frequency [Hz]	50/60							
Nominal AC Current [A]	13	14.3	16	18.3	20	21.7	23.9	26.1
Maximum AC Current [A]	14.3	15.8	17.6	20.1	22	23.9	26.9	28.7
Displacement Power Factor	0.8 Front ~ 0.8 Back							
Total Harmonic Distortion (THDi), Rated Power [%]	<2							
EFFICIENCY								
MPPT Efficieny [%]	99.9							
Maximum Efficiency [%]	97.8							
POWER CONSUMPTION								
Standby Mode Consumption [W]	<0.5							
STANDARD								
High/Low Voltage Protection	Yes							
DC Isolation Protection	Yes							
Earthing Current Fault Monitoring	Yes							
Grid Monitoring	Yes							
DC Current Injection Monitoring	Yes							
Feedback Current Monitoring	Yes							
Residual Current Detection	Yes							
Islanding Protection	Yes							
High Temperature Protection	Yes							
SPD	Yes							
Safety	IEC62109-1/-2							
EMC	EN61000-6-1/2/3/4, EN61000-3-2/3/11/12							
ENVIRONMENT CONDITIONS								
Protection Class based on IEC60529	IP66							
Operating Temperature Range [°C]	-25~+60 (Yield Loss>45)							
Maximum Operating Altitude (Altitude) [m]	<3000							
Humidity [%]	0~100 (Non-condensing)							
Storage Temperature [°C]	-30 ~+70							
Noise Emission [dB]	<30							
PHYSICAL FEATURES								
Dimensions (Width x Height x Depth) [mm]	430x341.5x143							
Weight [kg]	13.5	13.5	13.5	15	15	14.5	15	15
Cooling Method	Natural							
Topology	Unisolated							
Communication Interface	RS485 / USB - Update / Optional: Mobile Wi-Fi / Mobile LAN / Remote Wi-Fi / Uno Smart Meter							
LCD Screen	Evet							
Standard Warranty(Year)	10 Years (5 Years Product + 5 Years Spare Part)							

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TOMMATECH TRIO ATOM K SERIES THREE PHASE SERIES INVERTER

TRIO ATOM K 3.0 - 15.0 kW

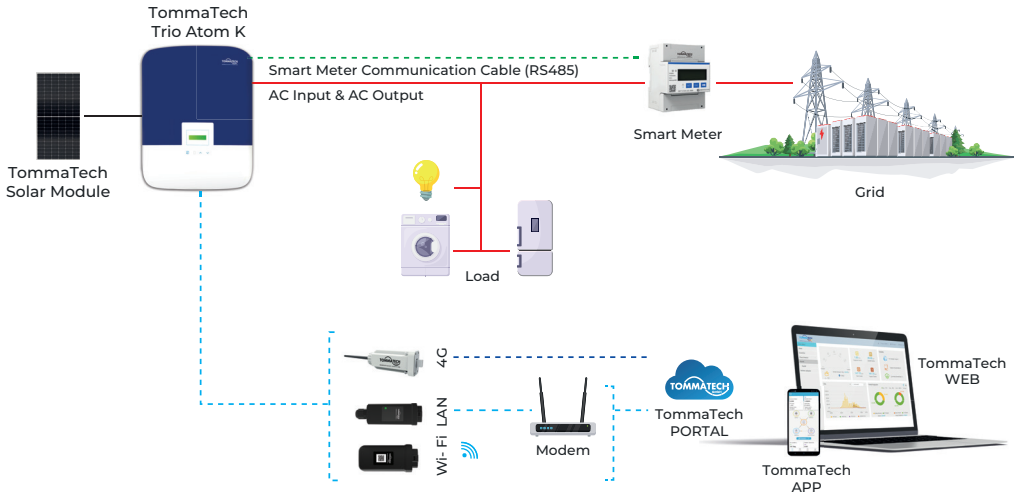
Trio Atom K

TommaTech Trio Atom K Series Three Phase Array Inverters stand out among its competitors in terms of quality, reliability and efficiency. In the series with a wide product range, it provides maximum 98.5% efficiency with a wide range of MPPT voltage ranges in various power options, enabling the highest level of solar energy generation. It has IP65 protection class certificate. Inverters are also available with Wi-Fi option for remote monitoring.

Product Features

- High Efficiency
- Wide Voltage Range
- Remote Monitoring
- Operation in Wide Temperature Range
- 3 Phase AC Output
- Small and Lightweight Design
- IP66 Protection
- Natural / Smart Fan Cooling
- 2 MPPT / 2-3 ARRAY Input
- 10 Years Warranty

Connection Diagram



MODEL	Trio-A-K-3	Trio-A-K-4	Trio-A-K-5	Trio-A-K-6	Trio-A-K-8	Trio-A-K-10	Trio-A-K-12	Trio-A-K-15
DC INPUT								
Maximum PV Array Power [Wp]	6000	8000	10000	12000	16000	20000	24000	30000
Maximum DC Voltage [V]	1000						1000	
Nominal DC Operating Voltage [V]	640						640	
Maximum Input Current [A]	16/16						32/16	
Maximum Short Circuit Current [A]	20/20						40/20	
MPPT Voltage Range [V]	120-980						120-980	
Switch-on Voltage [V]	150						150	
Number of MPPT	2						2	
MPPT Array Input Count	1/1						2/1	
AC OUTPUT								
Nominal AC Power [VA]	3000	4000	5000	6000	8000	10000	12000	15000
Maximum AC Power [VA]	3300	4400	5500	6600	8800	11000	13200	15000
Nominal Mains Voltage [V]	220/380, 230/400, 3/N/PE, 3/PE							
Nominal Mains Frequency [Hz]	50/60							
Nominal AC Current [A]	4.6/4.4	6.1/5.8	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4	22.7/21.8
Maximum AC Current [A]	4.8	6.4	8.0	9.6	12.8	16.0	19.1	22.7
Displacement Power Factor	0.8 Front ~ 0.8 Back							
Total Harmonic Distortion (THDi), Rated Power [%]	<3							
EFFICIENCY								
Europe Efficieny [%]	97.8							
Maximum Efficiency [%]	98.3							
POWER CONSUMPTION								
Standby Mode Consumption [W]	<3							
STANDARD								
High/Low Voltage Protection	Evet							
High Temperature Protection	Evet							
Dc Isolation Impedance monitoring	Evet							
Islanding Protection	Evet							
DC Current Injection Monitoring	Evet							
Residual Current Relay Protection	Evet							
LCD Screen	Evet							
Safety	IEC/EN 62109-1; IEC/EN 62109-2; NB/T 32004							
Electromagnetic Compatibility (EMC)	IEC/EN 61000; NB/T 32004							
ENVIRONMENT CONDITIONS								
Protection Class based on IEC60529	IP66							
Operating Temperature Range [°C]	-30~+60 (Yeild Loss>45)							
Maximum Operating Altitude (Altitude) [m]	<4000							
Humidity [%]	0~100 (Condensing)							
Storage Temperature [°C]	-30~+60							
Noise Emission [dB]	<30	<30	<30	<30	<45	<45	<50	<50
PHYSICAL FEATURES								
Dimensions (Width x Height x Depth) [mm]	342x434x144.5					342x434x156		
Weight [kg]	15.5	15.5	15.5	15.5	17	17	18	18
Cooling Method	Natural Cooling					Smart Fan Cooling		
Communication Interface	RS485 / USB - Update / Optional: Dongle Wi-Fi / Dongle LAN /Dongle 4G/ Trio Smart Meter							
Standard Warranty(Year)	10 Years (5 Years Product + 5 Years Spare Part)							

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TOMMATECH TRIO PLUS K SERIES THREE PHASE SERIES INVERTER

TRIO PLUS K 8.0 - 30.0 kW

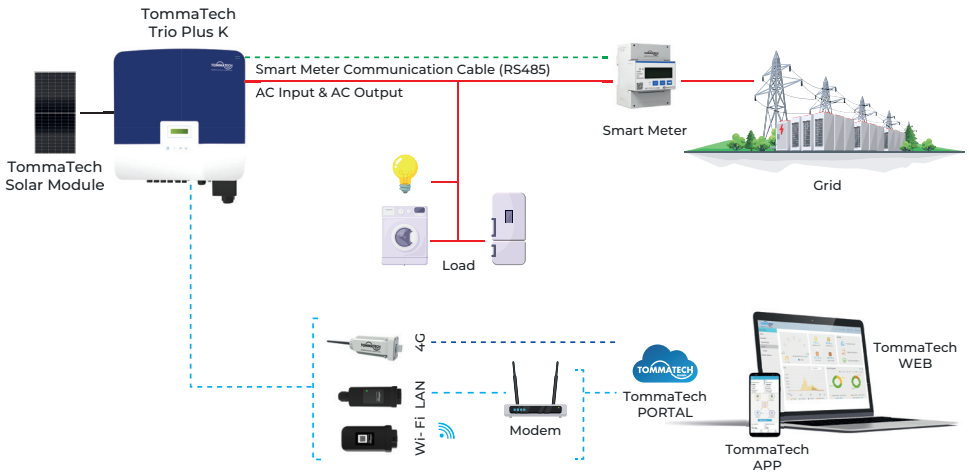
Trio Plus K

The TommaTech Trio Plus K Series of double and triple MPPT inverters, ranging from 8 kW to 30 kW, offer maximum flexibility thanks to a market-leading PV input voltage of 1100 V and design with maximum efficiency of 98.5% for high-power solar panels, various communication and online monitoring options as well as IP66 design, these inverters are your preferred choice for any residential solar solution.

Product Features

- High Efficiency
- Wide MPPT Voltage Range
- Remote Monitoring
- Operation in Wide Temperature Range
- 3 Phase AC Output
- Switching on at Low Voltage
- IP66 Protection
- Natural / Smart Fan Cooling
- 2-3 MPPT / 4-6 ARRAY Input
- 10 Years Warranty

Connection Diagram



MODEL	Trio-P-K-8	Trio-P-K-10	Trio-P-K-12	Trio-P-K-15	Trio-P-K-17	Trio-P-K-20	Trio-P-K-25	Trio-P-K-30
DC INPUT								
Maximum PV Array Power [Wp]	12000	15000	18000	22500	25500	30000	37500	45000
Maximum DC Voltage [V]	1100						1100	
Nominal DC Operating Voltage [V]	650						650	
Maximum Input Current [A]	32/32						32/32/ 32	
Maximum Short Circuit Current [A]	40/40						40/40/40	
MPPT Voltage Range [V]	160-980						160-980	
Switch-on Voltage [V]	200						200	
MPPT Number	2						3	
MPPT Sequence Input Number	2						2	
AC OUTPUT								
Rated AC Power [VA]	8000	10000	12000	15000	17000	20000	25000	30000
Maximum AC Apparent Power [VA]	8800	11000	13200	16500	18700	22000	27500	30000
Nominal Mains Voltage [V]	220/380, 230/400, 3/N/PE, 3/PE							
Nominal Mains Frequency [Hz]	50/60							
Nominal AC Current [A]	12.2/11.6	15.2/14.5	18.2/17.4	22.8/21.8	25.8/24.7	30.3/29	37.9/36.3	45.5/43.5
Maximum AC Current [A]	13.2	16	19.3	24.2	27.5	33.6	41.8	45.5
Displacement Power Factor	0.8 Front ~ 0.8 Back							
Total Harmonic Distortion (THDi), Rated Power [%]	<3							
EFFICIENCY								
MPPT Efficieny [%]	98.20			98.30			98.50	
Maximum Efficiency [%]	97.70			97.80			98.00	
GÜÇ TÜKETİMİ								
Standby Mode Consumption [W]	<3							
STANDARD								
High/Low Voltage Protection	Yes							
High-temperature protection	Yes							
Dc Isolation Impedance monitoring	Yes							
Islanding Protection	Yes							
DC Current Injection Monitoring	Yes							
Residual Current Relay Protection	Yes							
LCD Screen	Yes							
Safety	IEC/EN 62109-1; IEC/EN 62109-2; NB/T 32004							
Electromagnetic Compatibility (EMC)	IEC/EN 61000; NB/T 32004							
ENVIRONMENT CONDITIONS								
Protection Class(based On IEC60529)	IP66							
Operating Environment Temperature Range [°C]	-30~+60 (Yeild Loss>45)							
Maximum Operating Altitude (Altitude) [m]	<4000							
Humidity [%]	0~100 (Condensing)							
Storage Temperature [°C]	-30~+60							
Noise Emission [dB]	<30	<30	<30	<30	<45	<45	<50	<50
PHYSICAL FEATURES								
Dimensions(W x H x D) [mm]	482×417×181							
Weight [kg]	24.5			26			28	
Cooling Method	Natural Cooling					Smart Fan Cooling		
Communication Interface	RS485 / USB - Update / Optional: Dongle Wi-Fi / Dongle LAN / Dongle 4G / Trio Smart Meter							
Standard warranty	10 YEARS (5 YEARS PRODUCT + 5 YEARS SPARE PART)							

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TOMMATECH UNO HYBRID K SERİSİ TEK FAZ HİBRİT İNVERTER

UNO HYBRID K 3.0 - 7.5 kW

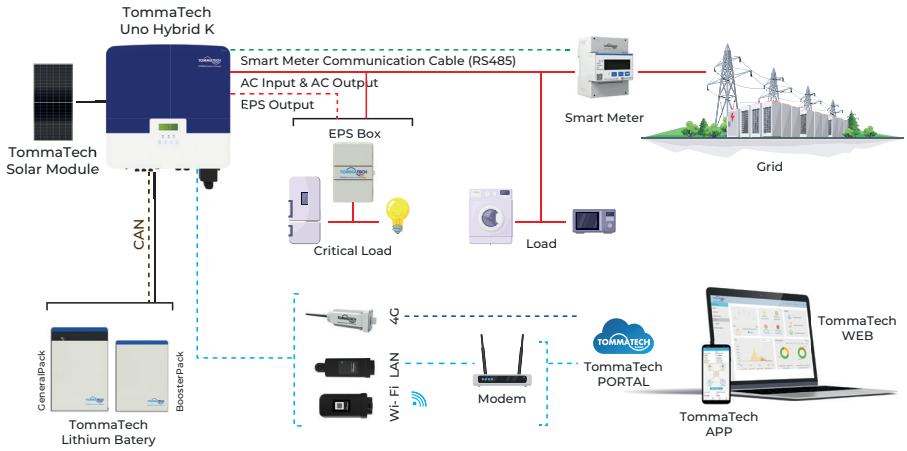
Uno Hybrid K

TommaTech Uno Hybrid K Series Single Phase Hybrid Inverters with maximum efficiency of 97.6%, enhanced PV array power, low switch-on voltage of 90V and maximum PV array voltage of 600V are designed to be compatible with leading Lithium-Ion battery solutions. They offer plug-and-play installation and optimise self-consumption through output control. There are power options between 3.0 kW and 7.5 kW.

Product Features

- High Efficiency
- Remote Monitoring
- 1 Phase AC Output
- IP65 Protection
- Phase Stabilisation
- Parallel Connections Up To 2
- Support High Voltage Battery
- Natural / Smart Fan Cooling
- 2 MPPT / 2 ARRAY Input
- 10 Years Warranty

Connection Diagram



MODEL	Uno-Hy-K-3.0	Uno-Hy-K-3.7	Uno-Hy-K-5.0	Uno-Hy-K-6.0	Uno-Hy-K-7.5
DC INPUT					
Maximum PV Array Power [Wp]	4500	5500	7500	9000	10000
Max. PV Input Voltage [V]	600				
Start Input Voltage [V]	90				
Nominal Input Voltage [V]	360				
MPPT Voltage Range [V]	70~550				
MPPT Number/ MPPT Sequence Input Number	2(1/1)				
Maximum Input Current (MPPT A / MPPT B) [A]	16/16				
Maximum Short Circuit Current (MPPT A / MPPT B) [A]	20/20				
AC INPUT & OUTPUT					
Nominal AC Output Power [W]	3000	3680	5000(DE için 4600)	6000	7500(PEA için 6900)
Max. AC Output Apparent Power [VA]	3300	3680	5500(DE için 4600)	6600	7500(PEA için 7300)
Max. AC Output Current [A]	14.4	16.0	23.9(DE için 20)	28.6	32.6(PEA için 33)
Max. AC Input Apparent Power [VA]	6300	7360	9200	9200	9200
Max. AC Input Current [AI	27.4	32.0	40.0	40.0	40.0
Nominal AC Voltage [V]	230~240				
Nominal Grid Frequency[Hz]	50/60				
Displacement Power Factor	0.8 Front ~0.8 Back				
THDi (Rated Power) [%]	<2				
BATTERY DATA					
Battery Type	Li-ion battery / Lead-acid battery				
Battery Voltage Range [VI	80-480				
Max. Continuous Charge/Discharge Current [A]	30				
EPS OUTPUT (WITH BATTERY)					
Nominal Output Power [W]	3000	3680	5000	6000	7500
Peak Apparent Power [VA]	3600,1sa	4416,1sa.	6000,1sa.	7200,10dk.	7500
Max. Continous Current [A]	13	16	21.7	26.1	32.6
Nominal Voltage [V]; Frequency [Hz]	230; 50/60				
Switch Time [ms]	<10				
Parallel Operation	Yes				
SYSTEM DATA					
Max. Efficiency [%]	97.6				
Euro. Efficiency [%]	97.0				
Battery Charge/Discharge Effciency [%]	97.0/97.0				
Standby Consumption [W]	<3				
Ingress Protection	IP65				
Operating Temperature Range [°C]	-35~+60 (Yeild Loss>45)				
Max. Operation Altitude [m]	<3000				
Humidity [%]	0~100				
Typical Noise Emission [dB]	<30				<45
Storage Temperature [°C]	-40~+65				
Dimensions [WxHxD] [mm]	482x417x181				
Net Weight [kg]	24				25
Cooling Concept	Natural Cooling				Smart cooling
Communication Interfaces	CT/ Uno Smart Meter(Optional) / External Control RS485/ Dongle Wi-Fi /Dongle LAN (Optional)/ DRM USB Upgrade/ NTC				
STANDARD					
Safety	EN/IEC62109-1/-2				
EMC	EN61000-6-1/2/3/ 4; EN61000-3-2/3/11/12				

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TOMMATECH TRIO HYBRID K SERIES
THREE PHASE HYBRID INVERTER

TRIO HYBRID K 5.0 - 15.0 kW

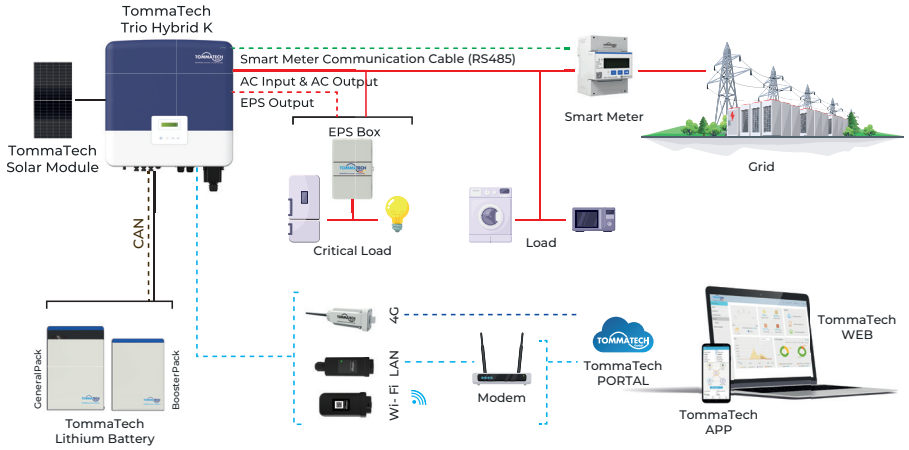
Trio Hybrid K

TommaTech Trio-Hybrid K Series Three Phase Inverters are the preferred solution for both residential and commercial projects as they support unbalanced phase output, are double protected for BMS and can be remotely controlled with multiple communication options. With power options between 5.0kW-15.0kW, it is possible to reach 46kWh storage capacity with a single inverter. In addition, it is possible to reach up to 150kWh and 460kWh storage in parallel installation.

Product Features

- **High Efficiency**
- **Remote Monitoring**
- **3 Phase AC Output**
- **IP65 Protection**
- **Phase Stabilisation**
- **Up to 10 Parallel Connecting**
- **High Voltage Battery Supported**
- **Natural / Smart Fan Cooling**
- **2 MPPT / 2-3 Array Input**
- **10 Years Warranty**

Connection Diagram



MODEL	Trio-Hy-K-5.0	Trio-Hy-K-6.0	Trio-Hy-K-8.0	Trio-Hy-K-10.0	Trio-Hy-K-12.0	Trio-Hy-K-15.0
DC INPUT						
Maximum PV Array Power [Wp]	8000	10000	12000	15000	18000	18000
Max. PV Input Voltage [V]	1000			1000		
Start Input Voltage [V]	200			200		
Nominal Input Voltage [V]	640			640		
MPPT Voltage Range [V]	180~950			180~950		
MPPT Number/ MPPT Sequence Input Number	2(1/1)			2(2/1)		
Maximum Input Current (MPPT A / (MPPT B) [A]	16/16			26/16		
Maximum Short Circuit Current (MPPT A / (MPPT B) [A]	20/20			30/20		
AC INPUT & OUTPUT						
Rated AC Output Power [W]	5000	6000	8000	10000	12000	15000
Maximum AC Output Apparent Power [VA]	5500	6600	8800	11000	13200	15000
Maximum AC Output Current [A]	8.1	9.7	12.9	16.1	19.3	24.1
Max. AC Input Apparent Power [VA]	10000	12000	16000	20000	20000	20000
Max. AC Input Current [Al	16.1	19.3	25.8	32.0	32.0	32.0
Nominal AC Voltage [V]	415/240; 400/230; 380/220					
Nominal Grid Frequency/Grid Fequency Range [Hz]	50/60					
Displacement Power Factor	0.8 Front ~0.8 Back					
THDi (Rated Power) [%]	<3					
BATTERY DATA						
Battery Type	Li-on Battery					
Battery Voltage Range [V]	180~800					
Max. Continuous Charge/Discharge Current [A]	30					
EPS OUTPUT (WITH BATTERY)						
Nominal Output Power [W]	5000	6000	8000	10000	12000	15000
Peak Apparent Power [VA]	7500,60s	9000,60s	12000,60s	15000,60s	15000,60s	16500,60s
Max. Continous Current [A]	7.2	8.7	11.6	14.5	17.5	21.8
Nominal Voltage [V]; Frequency [Hz]	400/230; 50/60					
Switch Time [ms]	<10					
Parallel Operation	Yes					
SYSTEM DATA						
Max. Efficiency [%]	98.0					
Euro. Efficiency [%]	97.7					
Battery Charge/Discharge Effciency [%]	98.5/97.5					
Standby Consumption [W]	<5W Cold Standby					
Ingress Protection	IP65					
Operating Temperature Range [°C]	-35~60 (Derating at>45, Charge Derating at>35)					
Max. Operation Altitude [m]	3000					
Humidity [%]	0~100					
Typical Noise Emission [dB]	<35				<45	
Storage Temperature [°C]	-40~+70					
Dimensions [WxHxD] [mm]	503x503x199					
Net Weight [kg]	30					
Cooling Concept	Natural Cooling				Smart Cooling	
Communication Interfaces	CT/ Trio Smart Meter/Dongle Wifi / Dongle LAN /Dongle 4G/ USB/ RS485 / DRM					
STANDARD						
Safety	EN/IEC62109-1/-2					
EMC	EN61000-6-1/2/3/ 4; EN61000-3-2/3/11/12					

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TOMMATECH TRIO HYBRID M SERIES
THREE PHASES HYBRID INVERTER

TRIO HYBRID M 50 kW

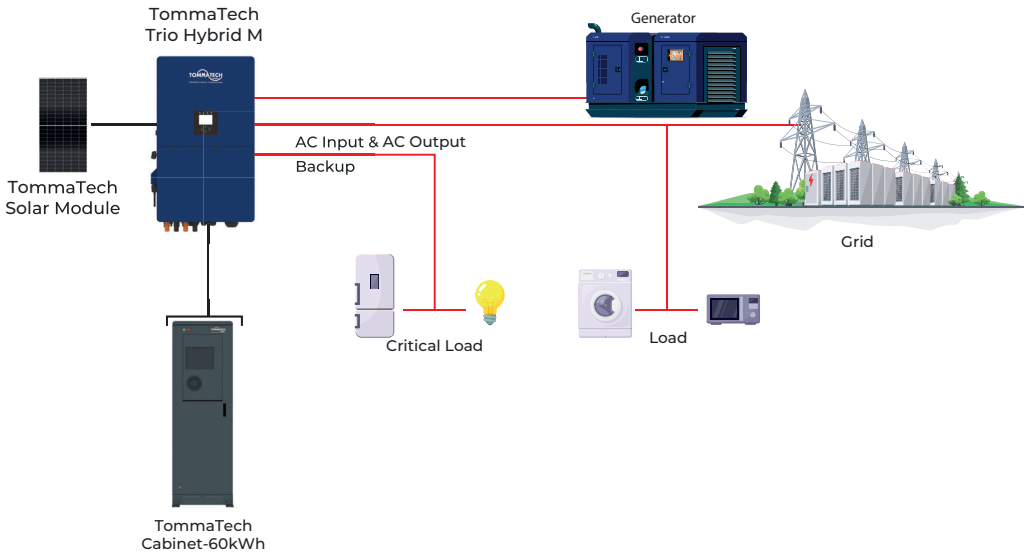
Trio Hybrid M

TommaTech Trio-Hybrid M Series 50.0K Three Phase HV Hybrid Inverter is an ideal choice for large-scale energy storage solutions with high voltage battery input. 50.0kW power provides high efficiency in commercial projects. This inverter, which works in full harmony with high capacity lithium batteries, offers capacity increase with the possibility of parallel use. While providing ease of monitoring and management with its remote control feature, it maximises the performance of your energy system.

Product Features

- Yüksek Verimlilik
- Remote Monitoring
- 3 Phase AC Output
- IP65 Protection
- Phase Stabilisation
- Up to 10 Parallel Connecting
- High Voltage Battery Supported
- 100A Charge/Discharge Current
- 4 MPPT / 8 Array Input
- 10 years Warranty

Connection Diagram



MODEL	INV-TT-TF-M50K
BATTERY INPUT DATA	
Battery Type	Lityum
Battery Voltage Range (V)	160-800
Max. Charging Current (A)	50+50
Max. Discharging Current (A)	50+50
Number of Battery Input	2
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
PV STRING INPUT DATA	
Max. DC Input Power (W)	65000
Max. DC Input Voltage (V)	1000
Start-up Voltage (V)	180
MPPT Range (V)	150-850
Full Load DC Voltage Range (V)	450-850
Rated DC Input Voltage (V)	600
PV Input Current (A)	36+36+36+36
Max. PV Isc (A)	55+55+55+55
No. of MPP Trackers	4
No. of Strings per MPP Tracker	2+2+2+2
AC OUTPUT DATA	
Rated AC Output Active Power (W)	50000
Max. AC Output Active Power (W)	55000
AC Output Rated Current (A)	75.8/72.5
Max. AC Output Current (A)	83.4/79.7
Max. Three-phase Unbalanced Output Current (A)	83.3
Max. Continuous AC Passthrough (A)	200
Peak Power (Off Grid)	1.5 time of rated power, 10 S
Generator Input / Smart Load / AC Couple Current (A)	75.8 / 200 / 75.8
Power Factor Adjustment Range	0,8 Front 0,8 Back
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Grid Type	Three Phase
Total Harmonics Current Distortion (THDi)	<%3 (of nominal power)
DC Current Injection	<0.5% In
EFFICIENCY	
Max. Efficiency [%]	%97.60
Euro Efficiency [%]	%97.00
MPPT Efficiency [%]	%99.90
PROTECTION	
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection, Arc Fault Circuit Interruption (AFCI optional)
Over Voltage Category	DC Tip II/AC Tip III
CERTIFICATIONS AND STANDARDS	
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
GENERAL DATA	
Operating Environment Temperature Range (°C)	-40-60,, >45 Yeild Loss
Cooling	Smart Cooling
Noise (dB)	≤65 dB
Communication with BMS	CAN
Weight (kg)	80
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 Years (10 Years Optional)

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Environmentally Friendly Energy at Your Home with On-Grid Systems!

Enjoy Uninterrupted Energy.

TOMMATECH HIGHTECH POWER
LiFePO4 LITHIUM BATTERIES
LİTYUM BATARYA 3.0 - 12.0 kWh

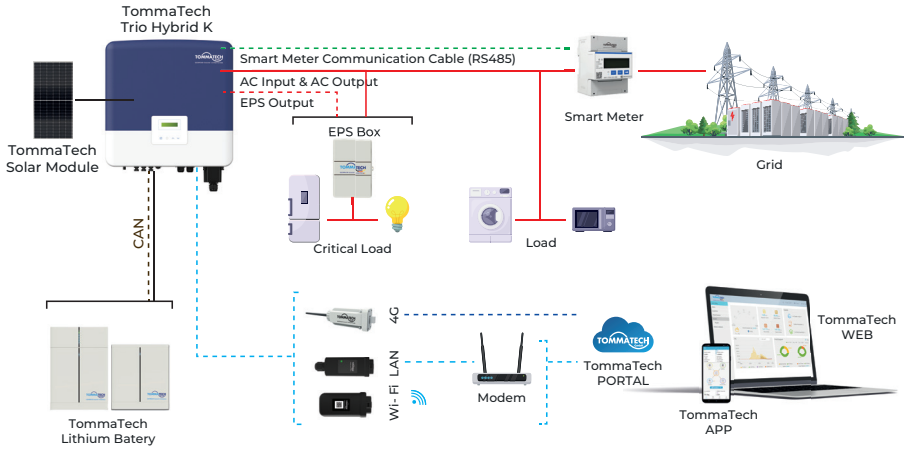
3.0 kWh

TommaTech's new High Power Lithium Battery Series offers high voltage battery solutions for hybrid (On-Grid & Off-Grid) systems. The Hightech Power 3.0 kWh Li-Ion Battery Series, which has a capacity of 3.1 kWh, has a new generation BMS (Battery Management System) technology with the option of up to 4 serial connections and a total storage capacity of up to 12 kWh. TommaTech Uno and Trio Hybrid Series Inverters offer a continuous and compact energy system concept. High Power Series Lithium Batteries with 90% discharge depth are a flexible, practical, high performance energy storage solution. At the same time, the series with new generation LFP technology is designed with the concept of safe energy.

Product Features

- **High Efficiency**
- **Remote Monitoring**
- **IP65 Protection**
- **BMS Communication**
- **$LiFePO_4$ Technology**
- **6000C Cycle**
- **102V Nominal Voltage**
- **30A Charge/Discharge Current**
- **Serial Connection Up to 4**
- **10 years Warranty**

Connection Diagram



MODEL	3.0 kWh	6.0 kWh	9.0 kWh	12.0 kWh
SYSTEM SPECIFICATIONS				
Uno-Hybrid-K 3.0T / 3.7T / 5.0T / 6.0T / 7.5T	Storage Manager + TT 3.0 kWh	Storage Manager + 2 x TT 3.0 kWh	Storage Manager + 3 x TT 3.0 kWh	Not Suitable
Trio-Hybrid-K 5.0T / 6.0T / 8.0T / 10.0T / 12.0T / 15.0T	Not Suitable	Storage Manager + 2 x TT 3.0 kWh	Storage Manager + 3 x TT 3.0 kWh	Storage Manager + 4 x TT 3.0 kWh
Battery	30Ah Lityum(LFP)			
Nominal Voltage [V]	102.4	204.8	307.2	409.6
Operating Voltage Range [V]	90-116	180-232	270-348	360-464
Battery Module	Module x 1	Module x 2	Module x 3	Module x 4
Rated Capacity [Ah]	30			
Total Energy [kWh]	3.1	6.1	9.2	12.3
Usable Energy [kWh]	2.8	5.5	8.3	11.0
Faradic Charge Eciency	99			
Roundtrip Eciency [%]	95			
Standard Power [kW]	2.5	5.1	7.6	10.2
Recommend Charge / Discharge Current [A]	25			
Max Charge / Discharge Current [A]	30			
Cycle Life [%90 DOD]	6000			
Warranty [Year]	10			
Available Charge / Discharge Temperature [°C]	-30 ~ 50			
Storage Temperature [°C]	0 ~ 40 (1 Yıl) -20 ~ 50 (3 Ay)			
Humidity [%]	0 ~ 100			
Altitude [m]	3000			
Protection	IP65			
System to Inverter	RS485 / CAN2.0			
Battery to Battery / BMS	CAN2.0			
Master Control LED Indicator Working	1 LED			
Master Control Capacity Indicator [%]	4 LED (25, 50, 75, 100)			
Battery Module LED	1 LED	2 LED	3 LED	4 LED
Switch On / Off	Buton x 1 + Breaker x 1			
Safety Certificate	CE, MSDS			
Un Number	UN3840			
Hazardous Materials Classifcation	Class 9			
Transport Testing Requirement	UN38.3			
PHYSICAL FEATURES				
Dimensions (WxLxH) [mm]	Storage Manager: 482.5×173.5×153 TT 3.0 kWh: 482.5×471.5×153	Storage Manager: 482.5×173.5×153 +2 x TT 3.0 kWh: 482.5×471.5×153	Storage Manager: 482.5×173.5×153 +3 x TT 3.0 kWh: 482.5×471.5×153	Storage Manager: 482.5×173.5×153 +4 x TT 3.0 kWh: 482.5×471.5×153
Weight [kg]	Storage Manager: 7.5 + TT 3.0 kWh: 34.5	Storage Manager: 7.5 +2 x (TT 3.0 kWh: 34.5) = 69	Storage Manager: 7.5 +3 x (TT 3.0 kWh: 34.5) = 103.5	Storage Manager: 7.5 +4 x (TT 3.0 kWh: 34.5= 138

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TOMMATECH HIGHTECH POWER LiFePO4 LITHIUM BATTERIES

LİTYUM BATARYA 5.8 - 23.0 kWh

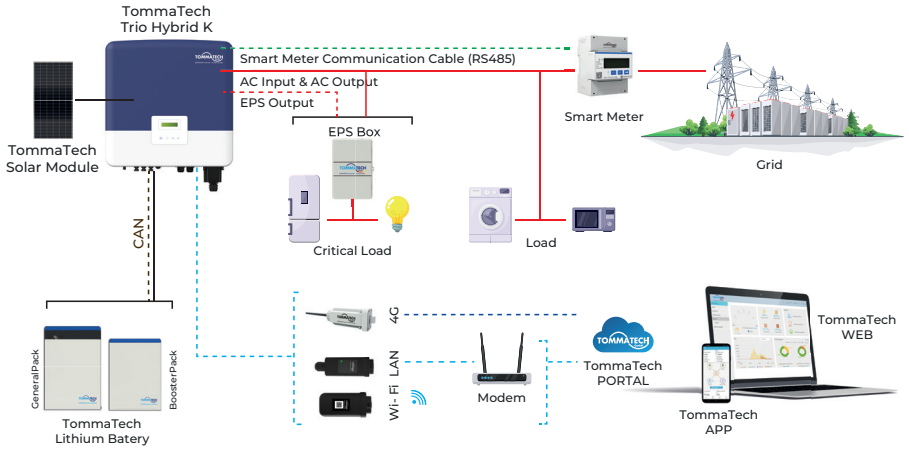
5.8 kWh

Tommatech's new High Power Lithium Battery Series offers high voltage battery solutions for hybrid (On-Grid & Off-Grid) systems. In the Hightech Power 5.8 kWh Li-Ion Battery Series with 5.8 kWh capacity, the General Pack battery with new generation internal BMS (Battery Management System) technology and Booster Pack batteries can be combined and connected up to 4 in series, with a total storage capacity of up to 23 kWh. TommaTech Uno and Trio Hybrid Series Inverters offer an uninterrupted and compact energy system concept.

Product Features

- **High Efficiency**
- **Remote Monitoring**
- **IP65 Protection**
- **BMS Communication**
- **$LiFePO_4$ Technology**
- **6000C Cycle**
- **115V Nominal Voltage**
- **30A Charge/Discharge Current**
- **Serial Connection Up to 4**
- **10 years Warranty**

Connection Diagram



MODEL	5.8 kWh	11.5 kWh	17.3 kWh	23.0 kWh
SYSTEM SPECIFICATIONS				
Uno-Hybrid-K 3.0T / 3.7T / 5.0T / 6.0T / 7.5T	General Pack	General Pack + Booster Pack	General Pack + 2 x Booster Pack	Not Suitable
Trio-Hybrid-K 5.0T / 6.0T / 8.0T / 10.0T / 12.0T / 15.0T	Not Suitable	General Pack + Booster Pack	General Pack + 2 x Booster Pack	General Pack + 3 x Booster Pack
Nominal Voltage [V]	115.2	230.4	345.6	460.8
Operating Voltage [V]	100-131	200-262	300-393	400-524
Battery Type	Li-Ion (LFP)			
Rated Capacity [Ah]	50			
Total Capacity [kWh]	5.8	11.5	17.3	23.0
Usable Capacity [kWh]	5.1	10.4	15.5	20.7
Faradic Charge Eciency [%]	99			
Battery Roundtrip Eciency [%]	95			
Standard Power [kW]	2.8	5.7	8.6	11.5
Max. Power [kW]	4.0	8.0	12.0	16.1
Recommended Charge / Discharge Current [A]	25			
Max. Charge / Discharge Current [A]	35			
Short Circuit Current [A]	760			
Cycle Life	>6000			
Warranty [Year]	10			
Available Operating Temperature Range [oC]	0 ~ 55			
Full-Load Operating Temperature Range [oC]	5 ~ 48			
Humidity [%]	4 ~ 100 (Condensing)			
Max. Operation Altitude [m]	2000			
Protection	IP65			
System to Inverter	CAN2.0			
Battery to Battery/BMS	RS485			
Data Collect on Port /FW UPDATE	CAN2.0			
Master Control Working Mode Indicator	1 LED			
Master Control Capacity Indicator [%]	4LED (25, 50, 75, 100)			
Battery Module LED	2 LED			
Reset	Buton			
Safety Certificate	CE, MSDS			
Un Number	UN3840			
Hazardous Materials Classifcation	Class 9			
Transport Testing Requirement	UN38.3			
PHYSICAL FEATURES				
Dimensions (WxLxH) [mm]	474x193x708	(474x193x708)+ (474x193x647)	(474x193x708)+2x (474x193x647)	(474x193x708)+3x (474x193x647)
Weight [kg]	72.2	72.2 + 68.5	72.2 + 2x68.5	72.2 + 3x68.5

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TOMMATECH CABIN TYPE ENERGY STORAGE SYSTEM

STORAGE SYSTEM-CABINET-60KWH-M50K

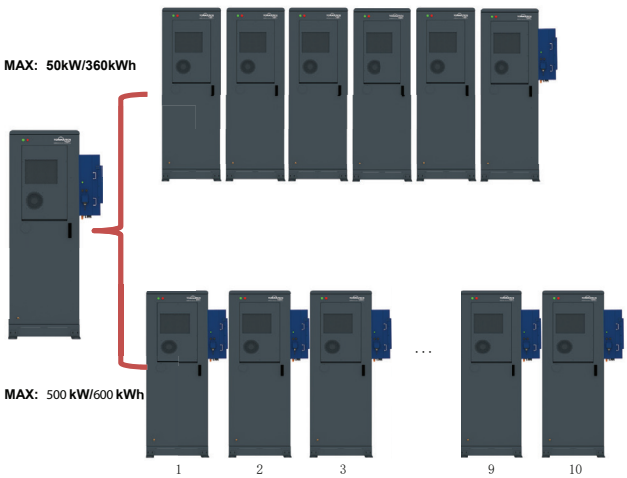
60 kWh - M50K

ESS Cabinet Series offers the most suitable solution for high storage power requirements with expandable inverter capacity from 50 kW AC to 500 kW AC and expandable storage capacity from 60 kWh to 3.6 MWh.

Product Features

- High Efficiency
- Remote Monitoring
- IP55 Protection
- BMS Communication
- Cyclic Charge Discharge
- Fire Extinguishing System
- Low Battery Operating Temp
- Emergency Sensors
- Expandible System
- 10 years Warranty

Connection Diagram



MODEL	ESS-TT-KB-60KWH-M50K
SYSTEM SPECIFICATIONS	
Rated Output Power/UPS Power (W)	50000
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Network Type	Three Phases
Energy Configuration (kWh)	61.4
Dimensions (W x D x H,mm)	735x1050x2250 (does not include inverter)
Approximate Weight (kg)	950 (battery) +80 (inverter)
AC Output Rated Current (A)	75.8
Battery Operating Voltage (V)	500 ~ 700
Maximum charge/discharge efficiency	%91
Battery Chemistry	$LiFePO_4$
Protection Class	IP55
Installation Method	Floor Installation
Guarantee	10 yıl
INVERTER TECHNICAL SPECIFICATIONS	
Maximum PV Input Power (W)	65000
Maximum PV Input Current (A)	36+36+36+36
Nominal PV Input Voltage (Vdc)	600
Starting DC Voltage (Vdc)	180
MPPT Voltage Range (Vdc)	150-850
Maximum PV Short Circuit Current (A)	55+55+55+55
MPPT count	4
Peak Power (off grid)	1.5 times the nominal power, 10 h
Power Factor	0,8 Front 0,8 Back
THD	<%3
DC Injection Current (mA)	%0.5
Display	LCD
Operating Temperature Range (°C)	-40~60(>45°C Yeild Loss)
Relative Humidity	15% ~ 85% (Non-condensing)
Dimensions (W x D x H,mm)	527x294x894
Inverter Communication	CAN,RS485,WIFI,ETH
Safety EMC / Standart	IEC/EN 62109-1,IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2,IEC/EN 61000-6-3,IEC/EN 61000-6-4
Network Regulation	VDE4105,IEC61727/62116,VDE0126,AS4777.2,CEI 0 21,EN50549-1, G98,G99,C10-11,UNE217002,NBR16149/NBR16150
Max. Productivity	%97.6
MPPT Efficiency	%99.9
BATTERY TECHNICAL SPECIFICATIONS	
Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	5.12
BMS Communication	CAN
Battery Module Dimensions (W*D*H mm)	440x570x133
Battery Module Weight (kg)	44
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~55°C
Cycle Life	≥6000(@25°C±2°C,0.5C/0.5C,%70EOL)
Battery Module Certification	CE, IEC62619, IEC62040, UN38.3

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ALL IN ONE

STORAGE SYSTEM - CABINET ESS-TT-232KWH-100KW-LC

232 kWh - 100 kW

ESS-TT-232KWH-100KW-LC is a reliable and scalable energy storage solution. Thanks to its flexible design, it can be expanded with up to 10 units and can reach 2.32 MWh - 1 MW system power by adapting to different power needs. It provides a safe use with integrated communication aesthetics and advanced security systems. Thanks to its robust structure and intelligent cooling features, it shows stable performance in various operating environments. By making energy management efficient and easy, this system is an ideal option for sustainable power solutions.

Product Features

- Industrial And Commercial Storage
- Distributed Energy
- Micro Grid
- Battery Charging Station
- 5G Base Station
- IP54 Protection
- Fire Extinguishing System
- Low Battery Operating Temp (40°C)
- Emergency Sensors
- Expandible System

Connection Diagram

MAX: 2.32 MWh / 1MW

MODEL	ESS-TT-232KWH-100KW-LC
DC	
Cell	LFP 280Ah
Voltage	650-949V
Package Capacity / Arrangement	46.6KWH / 1P25S
Protection	Circuit, Breaker and fuse
Enclosure Protection	IP67
System Capacity / Arrangement	232.9KWH / 1P260S
Nominal Current	140A
Charge/Discharge Rate	≤0,5Cp
DC Efficiency	%94
AC (On Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC340V~460V
Power Factor	-0.99~0.99
Rated Output Current	145A
Nominal Grid Frequency	50Hz/60Hz
Cabling	3P+N+PE (Non-isolated)
AC (Off Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC400V±%3
THD	Linear Load ≤%3
Rated Output Current	145A
Nominal Grid Frequency	50Hz/60Hz
Transformer / STS	No isolated transformer / STS inside
Output Wiring	3P+N+PE (Non-isolated)
System	
Overall System Efficiency	%87±0,5P (STD)
Communication	LAN, Modbus TCP
Fire Prevention	Pack level FKS112+pack level Aerosol + water
DOD	%5~95
Charge/Discharge Rate	≤0,5Cp
Cooling Power	2.2kW/5.0kW@W18/L35
Cooling	Liquid cooling
Operating Temperature	-20°C~50°C (>45°C loss of value)
Cabin Enclosure Protection for Cabin	IP54
Relative Humidity Range	5~%95 relative humidity (non-condensing)
Noise	<75dB
Weight	3000KG
Max. Working Height	≤2000M
Dimension (mm)	1600L×1400D×2200H

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Dongle

Wi-Fi / LAN / 4G

Dongle

In order to increase the performance of your inverter, remote monitoring, control and software updates can be done easily with the dongle device and energy efficiency is maximised.

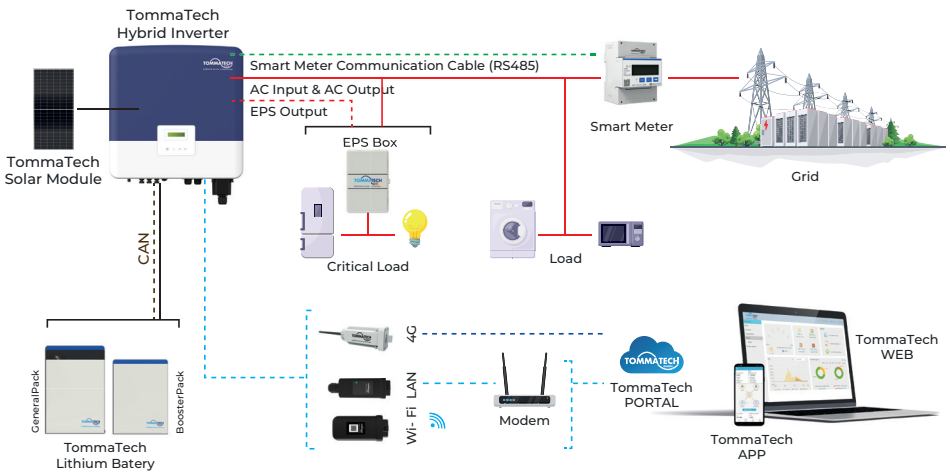
Product Features

IP65 Protection

Plug / Play

Remote Monitoring

Connection Diagram



MODEL	Dongle Wi-Fi 3.0	Wi-Fi Plus Dongle 3.0
SYSTEM SPECIFICATIONS		
Feeding Voltage	5V 260mA DC	5V 260mA DC
Frequency	Wi-Fi 2.4GHz	Wi-Fi 2.4GHz
Antenna Gain	3dB	3dB
Data Loading Intervals	5 min.	5 min.
Degree of Protection	IP 65	IP 65
Size	95.5*45.7*28.5 mm	112*45.7*28.5 mm
Weight	50g	107±10g
Operating Temperature Range	-40°C ~ +85°C	-35°C ~ +60°C

MODEL	Dongle LAN 3.0	Wifi+LAN Dongle 3.0
SYSTEM SPECIFICATIONS		
Feeding Voltage	5V 180mA DC	5V 180mA DC
Frequency	2.400~2.472GHz	WiFi 2.4 GHz
Antenna Gain	3dB	3 dB
Data Loading Intervals	5 min.	5 min.
Degree of Protection	IP 65	IP 65
Size	112*45.7*28.5 mm	112*45.7*28.5 mm
Weight	75g	80±10 g
Ethernet	10/100M	10/100M
Operating Temperature Range	-25°C ~ +75°C	-35°C ~ +60°C

MODEL	4G Dongle	Wi-Fi+4G Dongle
SYSTEM SPECIFICATIONS		
Feeding Voltage	5V 500mA DC	5V 200mA DC
Frequency	-	WiFi 2.4 GHz
Data Loading Intervals	5 min.	5 min.
Degree of Protection	IP 65	IP 65
Size	112*45.7*28.5 mm	112*45.7*28.5 mm
Weight	135g	88±10 g
Operating Temperature Range	35°C ~ +75°C	-35°C ~ +60°C
SIM Card Size	Nano - 4FF 12.3*8.8 mm	Nano - 4FF 12.3*8.8 mm

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Smart Meter

Uno / Trio / Trio CT

Smart Meter

It enables you to monitor your energy consumption instantly and optimises energy management. With its user-friendly interface and precise measurement capability, it helps you increase your energy efficiency. Thanks to advanced communication protocols, your energy data is securely monitored and analysed.

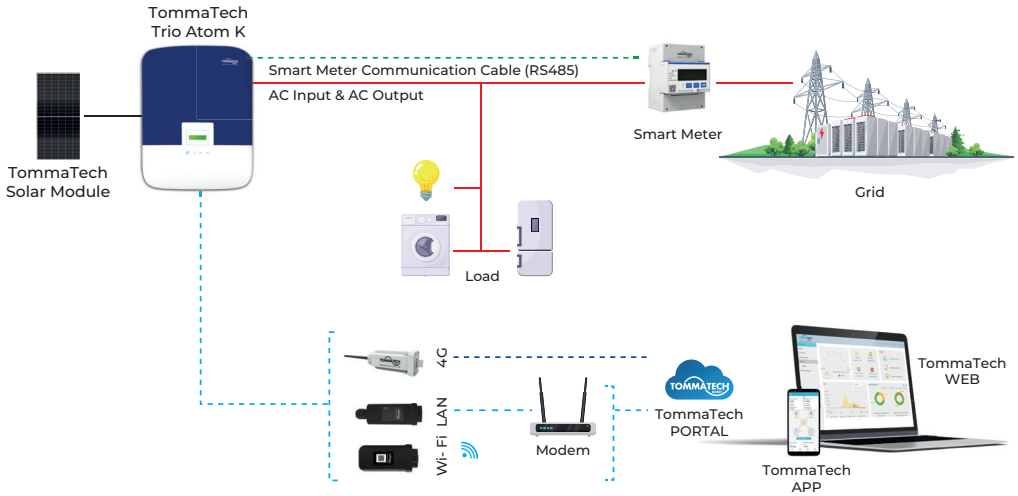
Product Features

Operation in Wide Temperature Range

Small and Lightweight Design

Remote Monitoring

Connection Diagram



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	Uno Smart Meter	Trio Smart Meter	Trio Smart Meter-CT
MODEL	DDSU666	DTSU666	DTSU666-CT
SYSTEM SPECIFICATIONS			
Dimension (HxWxD)	100 x 36 x 65.5 mm (3.9 x 1.4 x 2.6 inch)	100 x 72 x 65.5 mm (3.9 x 2.8 x 2.6 inch)	100 x 72 x 65.5 mm (3.9 x 2.8 x 2.6 inch)
Mounting Type	DIN35 Ray		
Weight (Including Cables)	1.2 kg (2.6 lb)	1.5 kg (3.3 lb)	1.5 kg (3.3 lb)
POWER SOURCE			
Power Grid Type	1P2W	3P4W/3P3W	3P4W/3P3W
Input Voltage (Phase Voltage)	184Vac ~ 264.5Vac	154 Vac ~ 286 Vac	154 Vac ~ 286 Vac
Power Consumption	1 W	1.5 W	1.5 W
MEASUREMENT RANGE			
Line Voltage	/	290.5 Vac~ 539.5 Vac	290.5 Vac~ 539.5 Vac
Phase Voltage	184Vac ~ 264.5Vac	168 Vac ~ 312 Vac	168 Vac ~ 312 Vac
Current	0.25-5(80)A	0.25-5(80)A	0.015-1.5(6)A (CT: 200A)
MEASUREMENT ACCURACY			
Accuracy Class	B Class	B Class	C Class
CONTACT US			
Interface	RS485		
Baud Rate	9,600 bps		
Communication Protocol	Modbus-RTU		
ENVIRONMENTAL CONDITIONS			
Operating Temperature Range	-25°C~+55°C	-10°C~+45°C	-10°C~+45°C
Storage Temperature Range	-25°C~+55°C	-25°C~+75°C	-25°C~+75°C
Operating Humidity	<%75 non-condensing		
OTHER			
Accessories	RS485 Cable (10 m / 33 ft.), RJ45 Connector		
	/	/	3 CT 200A/5A (1m)

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EPS Box

Uno / Trio / Trio Parallel

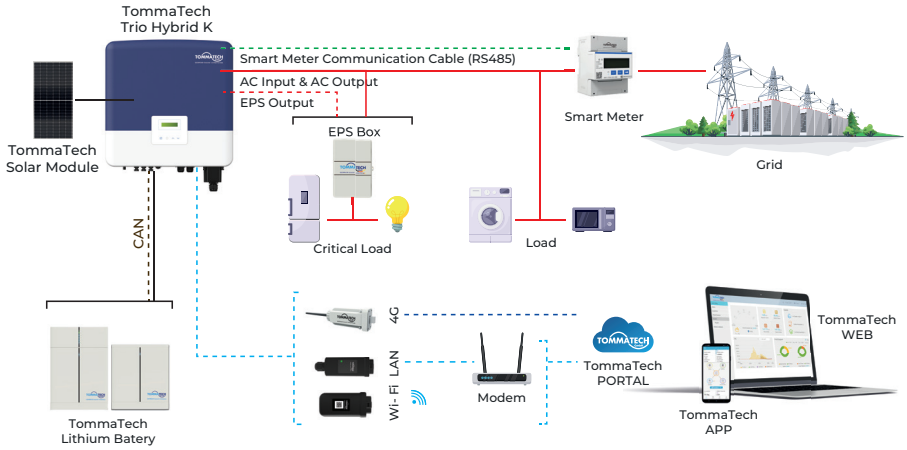
EPS Box

Support your hybrid inverters with EPS Box and feed your loads safely even in power outages. It keeps your critical systems safe by switching from the grid when the grid is available and to the EPS output of the inverter in case of outage. Increase your energy security with the EPS Box and stay in control under all circumstances.

Product Features

- **Sturdy**
- **Fast Transition Time**
- **Operation in Wide Temperature Range**
- **Easy Installation**

Connection Diagram



MODEL	Uno EPS BOX	Trio EPS BOX	Trio EPS Parallel BOX
SYSTEM SPECIFICATIONS			
Nominal Grid Voltage (V AC)	1/N/PE-230	3/N/PE-400/230	3/N/PE-400/230
Nominal Grid Frequency (Hz)	50/60	50/60	50/60
Maximum Grid Input Current (A)	1x63	3x63	3x160
Rated EPS Voltage (V AC)	1/N/PE-230	3/N/PE-400/230	3/N/PE-400/230
Nominal EPS Frequency (Hz)	50/60	50/60	50/60
Maximum EPS Input Current (A)	1x63	3x63	3x160
Nominal Load Voltage (V AC)	1/N/PE-230	3/N/PE-400/230	3/N/PE-400/230
Nominal Load Frequency (Hz)	50/60	50/60	50/60
Maximum Load Input Current (A)	1x63	3x63	3x160
Over Voltage Category	III	III	III
Operating Temperature Range (°C)	-20 ~ +60	-20 ~ +60	-20 ~ +60
Input Protection	IP65	IP65	IP65
Transition Time(s)	0.5	0.5	0.5
Dimension (mm)	300x400x220	300x400x220	500x700x250
Weight (kg)	6	6	18,2

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Smart Controller

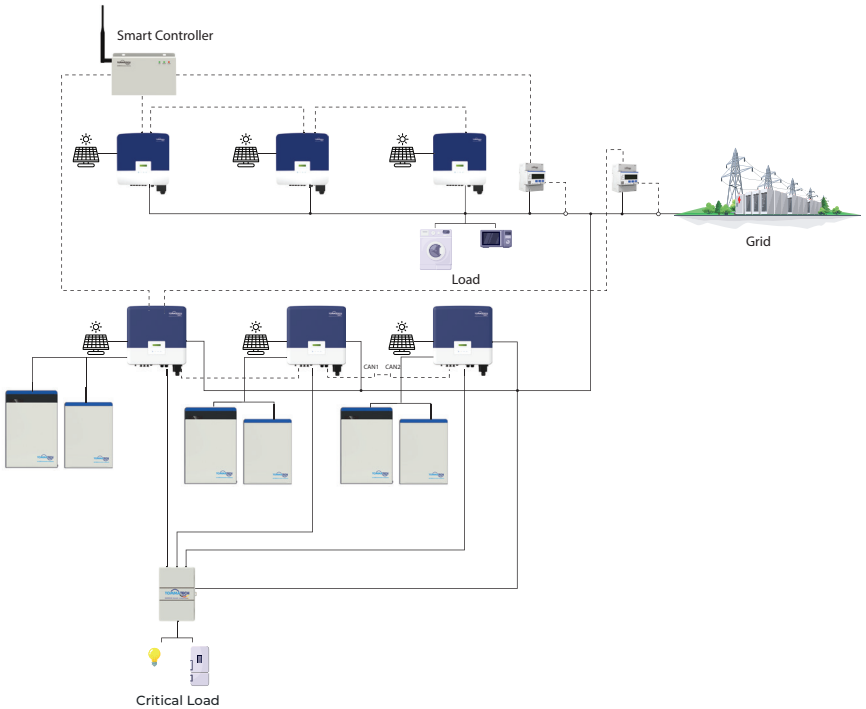
Smart Controller

A professional solution for monitoring and managing multiple TommaTech inverters. It has power control functions to ensure local grid compatibility. It offers both local and remote monitoring and configuration options, allowing users to make energy management more efficient and intelligent. It optimises your energy management with advanced features such as storage capacity, IEC104 protocol support and smart scenarios.

Product Features

- **Remote Monitoring**
- **Cascade Connection**
- **Big Data Storage**
- **IEC-104 Protocol**
- **Smart Power Management**

Connection Diagram



MODEL	Smart Controller
SYSTEM SPECIFICATIONS	
Power adapter	100-240V 50/60Hz 1.5A AC input, 12V 2A DC output
Wireless module	Wi-Fi 2.4GHz
Ethernet	10/100M
Managed device quantity	60
Interfaces	RS485 x 4, CAN x 1, Ethernet x1
Dry contact	AI x 2, DI x 4, DO x 4
Data transfer interval	5 mins
Expanded storage capacity	8G/16G TF card (Optional)
Dimensions	205 x 124 x 33 mm
Weight	410 g
Degree of protection	IP 21
Operating temperature range	-20 ~ +60°C

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Heatpump Controller

Heatpump Controller

It is a smart solution that optimises energy management by integrating heat pumps with photovoltaic inverters. This device, which is compatible with heat pumps with dry contact function, ensures the most efficient use of solar energy by operating according to parameters such as mains power, battery capacity and time determined by the user. It provides power consumption calibration, especially when there is excess solar energy and sufficient battery storage capacity. Thus, electricity consumption is reduced and maximum benefit from renewable energy is achieved.

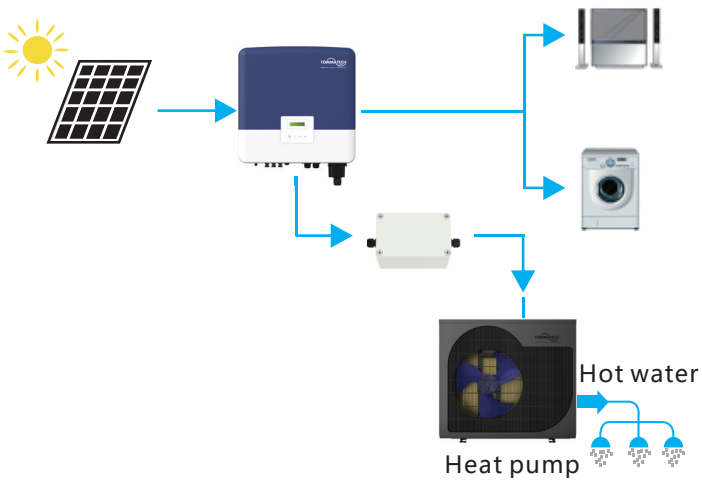
Product Features

Integrated Operation With Heat Pump

Smart Energy Management

Easy Installation

Connection Diagram



MODEL	Heatpump Controller
SYSTEM SPECIFICATIONS	
Maximum Output Voltage [V]	277
Maximum Output Current [A]	5
Nominal Input Voltage [V]	12
Degree of Protection	IP65
Operating Ambient Temperature Range [°C]	-25~60

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Booster Paralel BOX

Booster

Maximise your energy with Hightech Power series 5.8kWh high voltage lithium batteries! You can double your system with Booster Pack batteries using the Booster Parallel Box. With this flexible and powerful solution, meeting your energy needs has never been easier. More energy, more freedom.

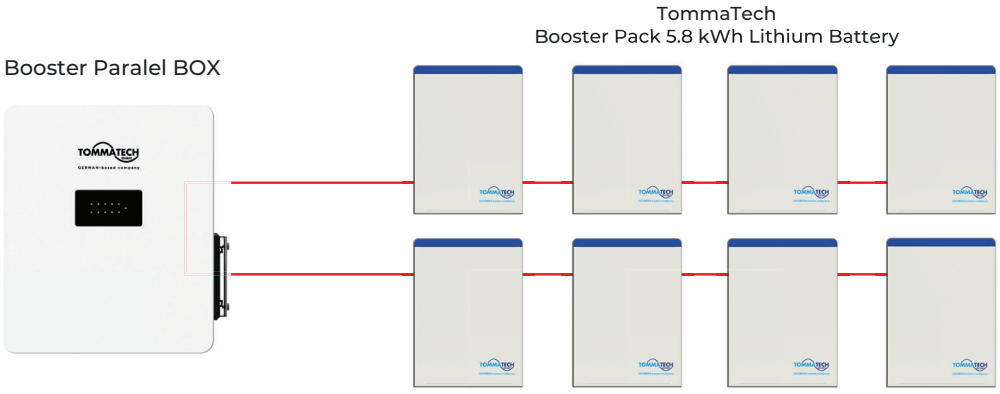
Product Features

Operation in Wide Temperature Range

Small and Lightweight Design

Expandible System

Connection Diagram



MODEL	Booster Paralel Box
ENVIRONMENTAL NEED	
Operating Charge/Discharge Temperature Range [°C]	0 ~ 55
Full Load Charge/Discharge Temperature Range [°C]	5 ~ 48
Storage Temperature [°C]	-20 ~ +55 (3 Months) 0 to 40 (1 Year)
Humidity [%]	0 to 100
Height [m]	2000
Protection	IP55
COMMUNICATION	
System to Inverter	CAN2.0/RS485
Battery to Battery/BMS	RS485
Main Control LED Indicator Operation Mode	3LED
Main Control Capacity Indicator	2*4LED (25%, 50%, 75%, 100%)
Battery Module LED	2 LED
CERTIFICATION	
Security	IEC 62477-1, IEC 61439-1, IEC 61439-2, UN38.3
EMC	IEC 61000-6-1/2/3/4
GENERAL	
Dimensions [mm]	368x310x140
Weight [kg]	5.2
Expected Lifespan [Years]	5
Recommended Charge/Discharge Current [A]	25
Max. Charge/Discharge Current [A]	35
Cycle Life [90% DOD]	6000

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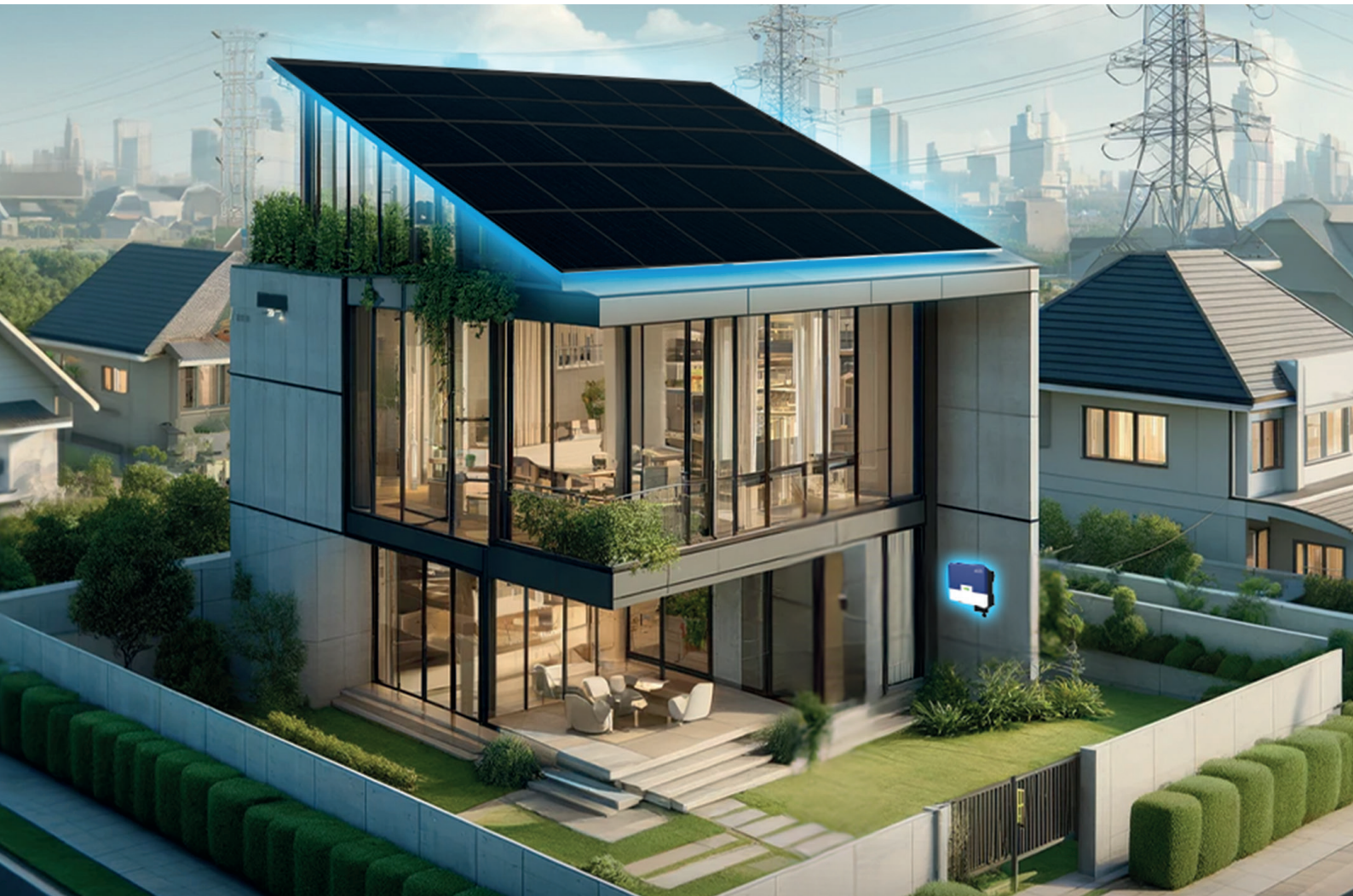

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PORTAL

experience the

COMFORT OF THE FUTURE

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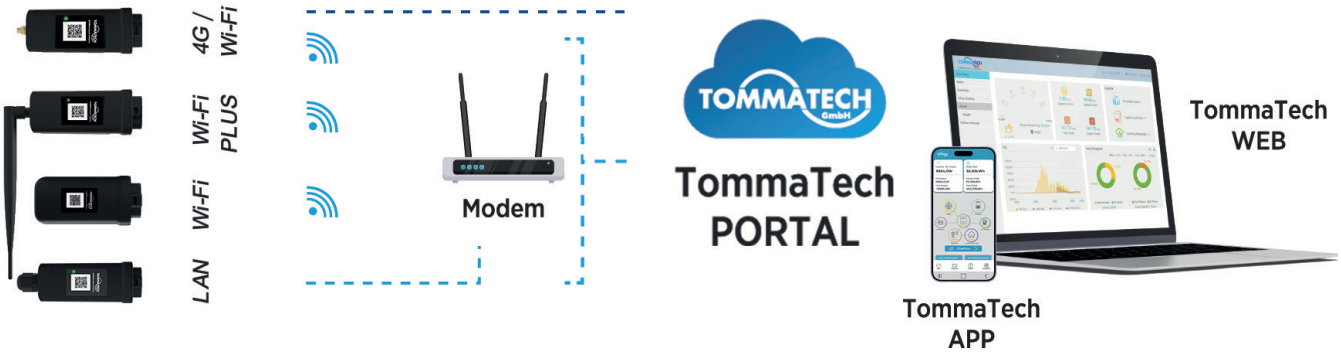
"One Brand, One Application"

Easy Use

With TommaTech Portal, you can easily provide remote monitoring and control of all your devices through a single application. You can make many setting changes and remote monitoring from the voltage and current values you receive from the panels to the occupancy rate of your high voltage battery, from the instantaneous power requirement of your home to the instantaneous consumption of the EV Charger, from the operating mode selection of the hybrid inverter to the water temperature change via the heat pump.

Easy Access

Thanks to various remote monitoring accessories, it offers the option of remote monitoring either wired or wirelessly depending on the installation location.
You can easily log in from anywhere at any time via WEB or APP. By logging in via WEB, you can access the detailed data of your system and create reports on a daily, monthly or annual scale.



Power and Energy Storage

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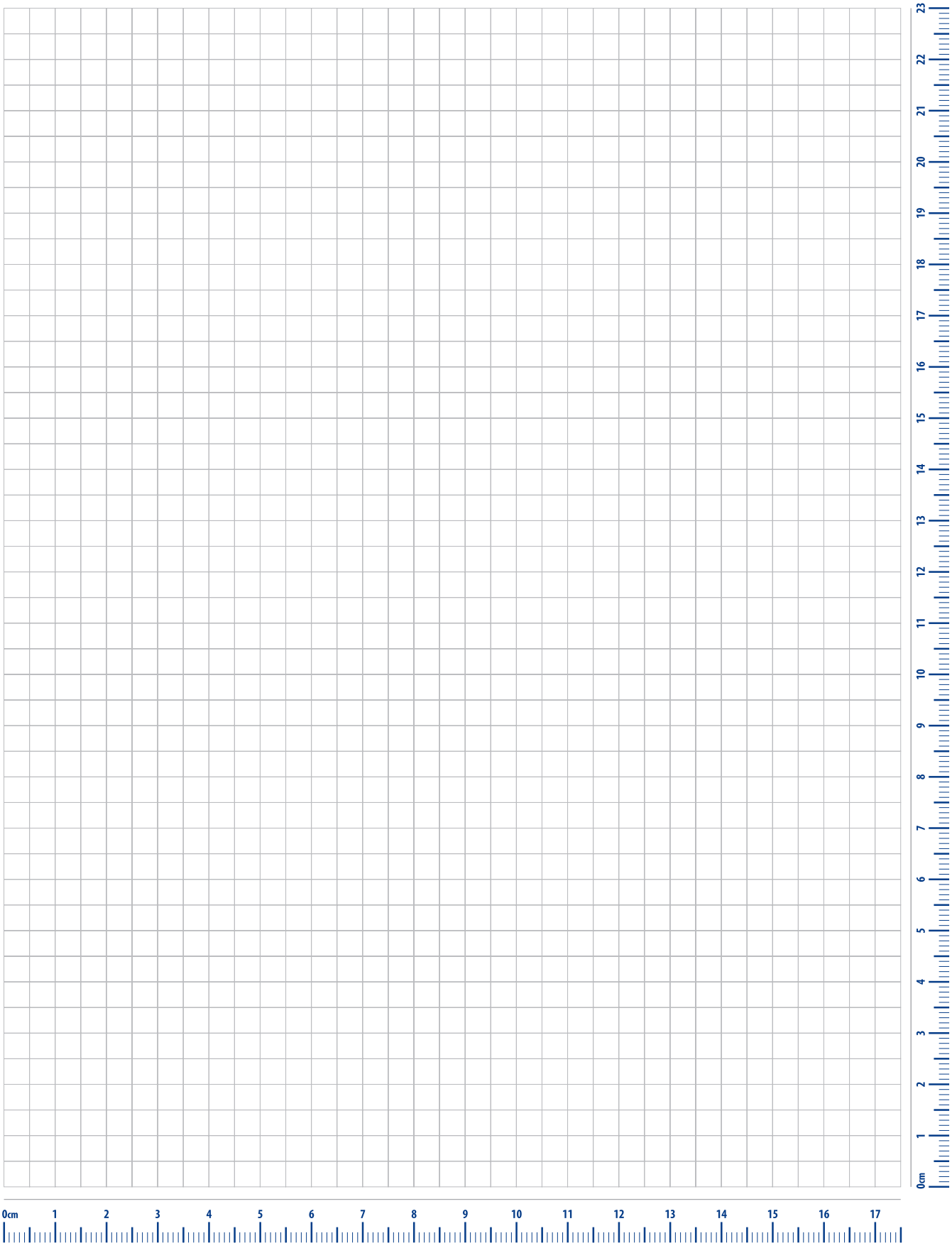

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Sustainable Life
with the power of the Sun

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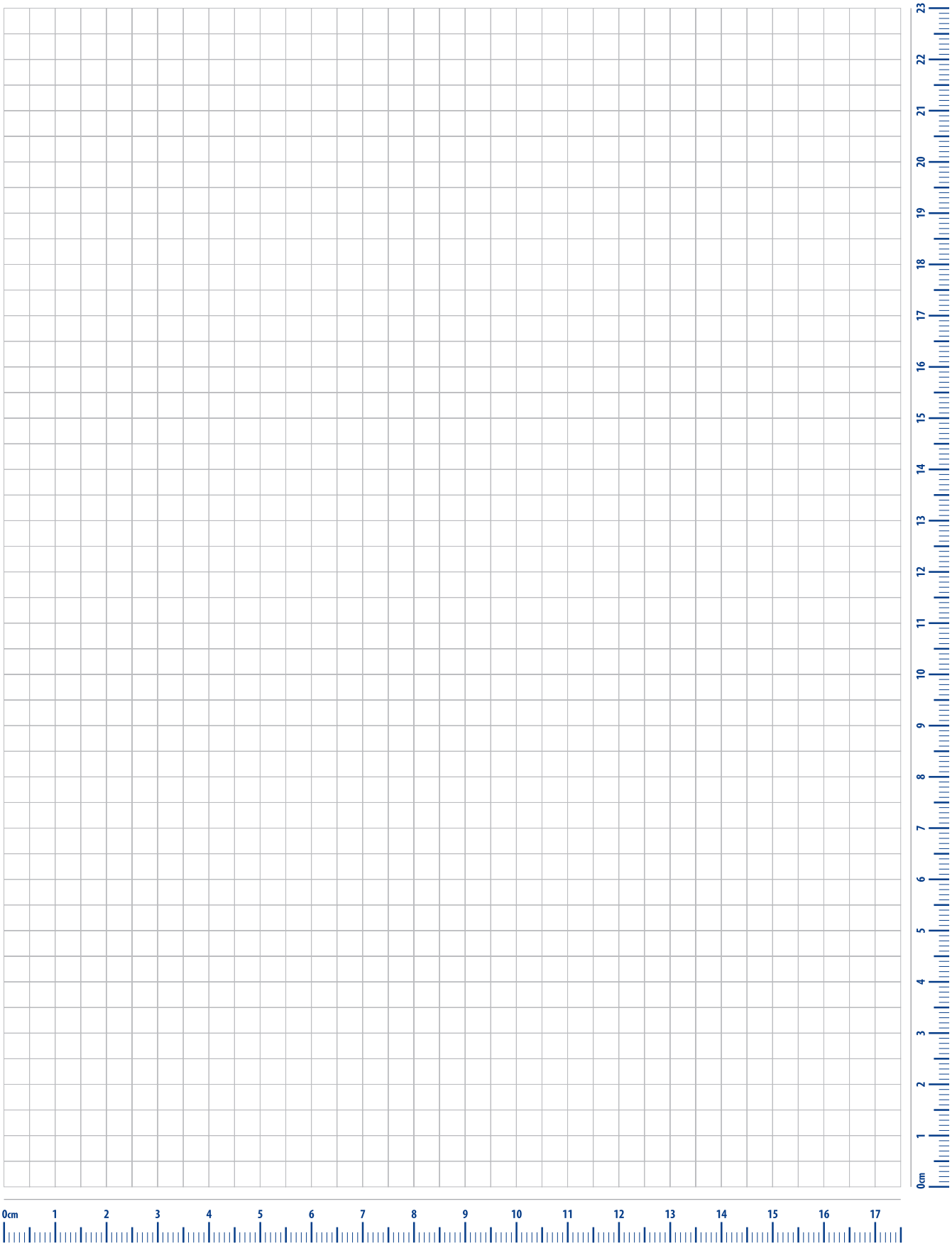

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