TOMMATECH GmbH

GERMAN-based company

SOLAR CARPORT SYSTEMS

Catalogue

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 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

TOMMATECH GmbH

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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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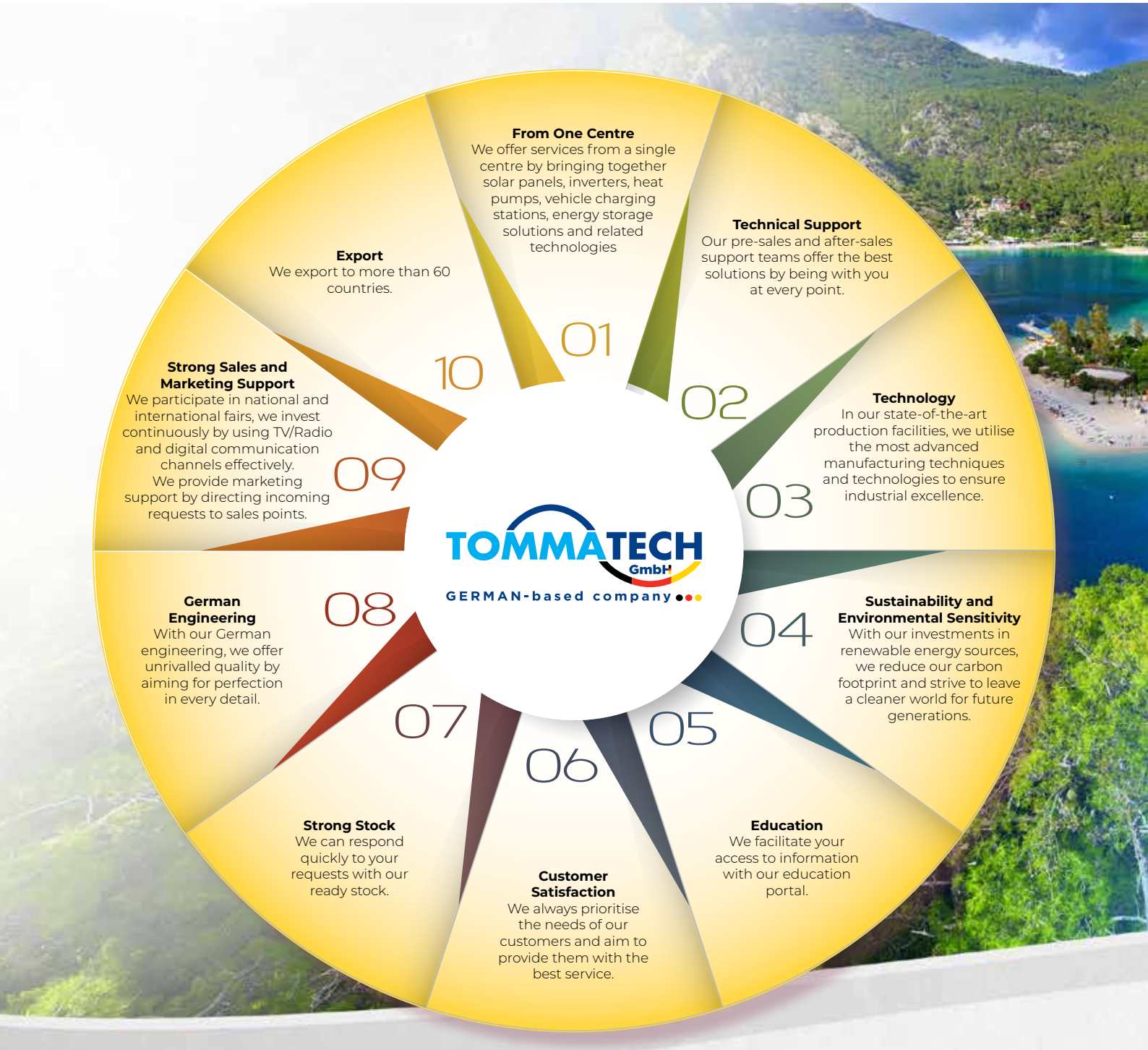

with TommaTech

You are in control!

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1 VEHICLE SOLAR CARPORT

AY-CAR-STL-1CAR-590

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2 VEHICLE SOLAR CARPORT

AY-CAR-STL-2CAR-590

WHAT IS A SOLAR CARPORT?

Solar carports are structures where solar panels are mounted above vehicle parking areas. These systems convert solar energy into electricity, providing both an eco-friendly energy source and shade for vehicles. Solar carports are an effective solution for reducing energy costs and minimizing environmental impact. Obtaining professional support during the installation process and when selecting the system is crucial to ensure optimal efficiency and safety.

HOW DOES A SOLAR CARPORT WORK?

A solar carport is a parking structure equipped with solar panels. These panels convert sunlight into electrical energy, which can be used to charge electric vehicles, provide lighting, or supply power to a building. The working principle of a solar carport is as follows: Solar panels are mounted on the roof of the carport. These panels absorb sunlight and generate DC (direct current) electricity. The generated electricity is then converted into AC (alternating current) through an inverter and transferred either to charging units or directly into the electrical system. Additionally, the carport's design provides vehicle protection while ensuring efficient use of solar energy.

APPLICATIONS OF SOLAR CARPORTS PARKING AREAS

- Parking Areas
- Fuel Stations
- Rest Areas
- Residential Parking Spaces
- Workplace Parking Areas

ADVANTAGES OF SOLAR CARPORTS

Coast Efficiency: In the medium and long term, solar carports offer lower vehicle-related expenses through reduced maintenance and fuel costs.
Shading and Protection: Solar carports shield vehicles from sunlight, hail, and debris such as falling leaves from trees. This can extend the lifespan of vehicles and reduce maintenance needs.

Energy Generation: These systems produce solar energy in parking areas, which can either be fed back into the power grid or used directly to power electric vehicle charging stations.

Thanks to these advantages, solar carport systems offer a practical and sustainable solution for both individuals and businesses. In the long run, installing such systems can reduce energy costs while minimizing environmental impact.

WHY CHOOSE A SOLAR CARPORT?

Solar carport systems are structures that cover vehicle parking areas and convert solar energy into electrical energy. These systems offer a range of features and benefits.

Key Features of Solar Carport Systems:

1. ENERGY GENERATION

- **Solar Panels:** Solar panels mounted on the roof of the carport convert sunlight into electricity.
- **Energy Storage:** Some systems include battery storage to retain the generated electricity. This stored energy can be used during nighttime or cloudy days.

2. PARKING AREA

- **Protection:** Vehicles are shielded from sun, rain, and other weather conditions.
- **Shading**: Helps prevent vehicles from overheating by reducing interior temperatures while parked.

3. ADDITIONAL FEATURES

- **Carbon Footprint Reduction:** By using solar energy, the reliance on fossil fuels is minimized, leading to lower carbon emissions.
- **Renewable Energy:** Solar power is a renewable and sustainable energy source.

4.AESTHETIC AND FUNCTIONAL DESIGN

- **Modular Structures:** Solar carport systems are available in various sizes and designs, and can be customized to fit different spaces.
- **Visual Appeal:** Modern designs offer an attractive appearance and can complement overall architectural aesthetics.

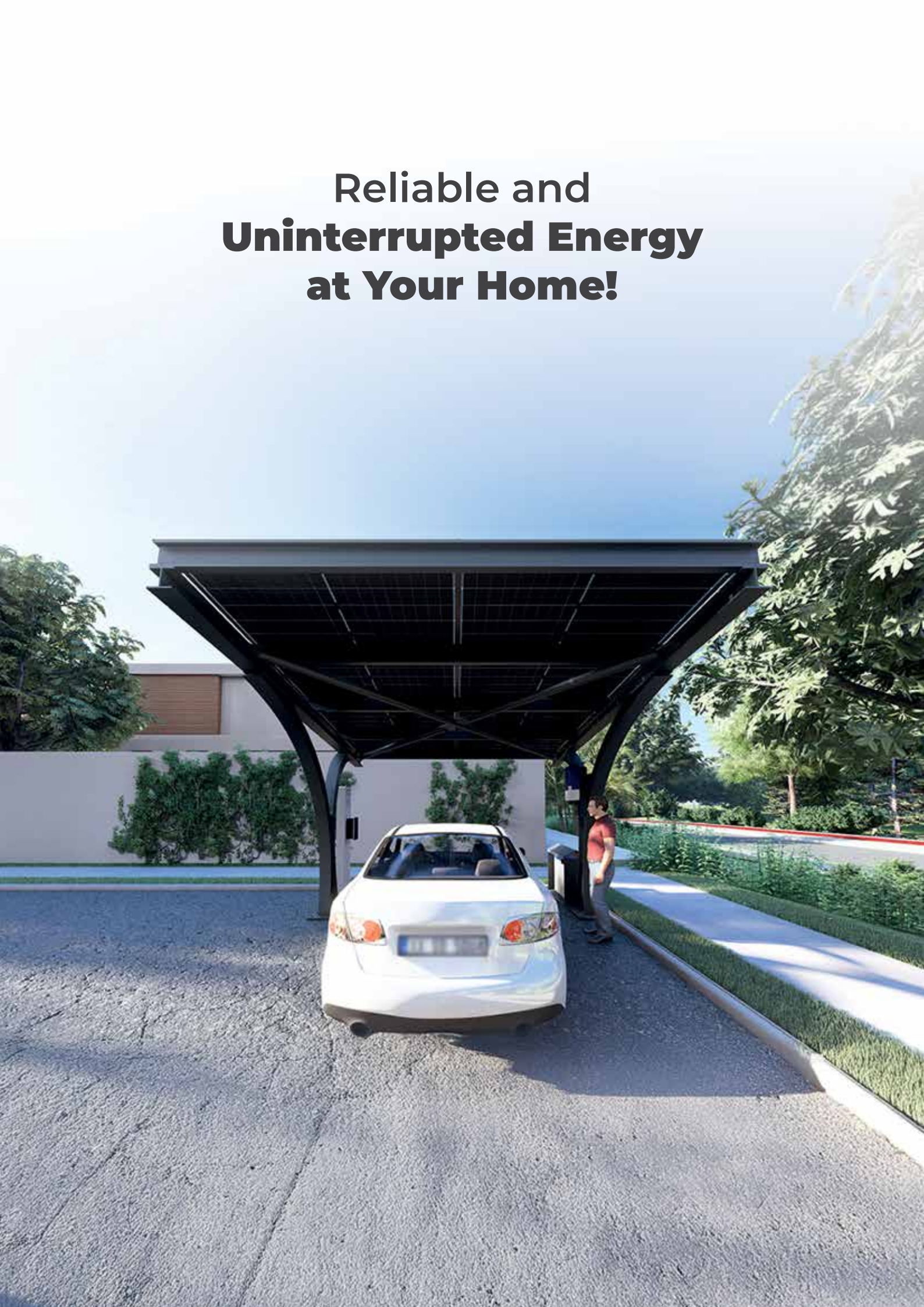
5. ADDITIONAL FEATURES

- Charging Stations: Integrated charging stations can be added to power electric vehicles.
- Lighting Systems: Lighting can be installed under the carport to provide better visibility for vehicles parked at night.

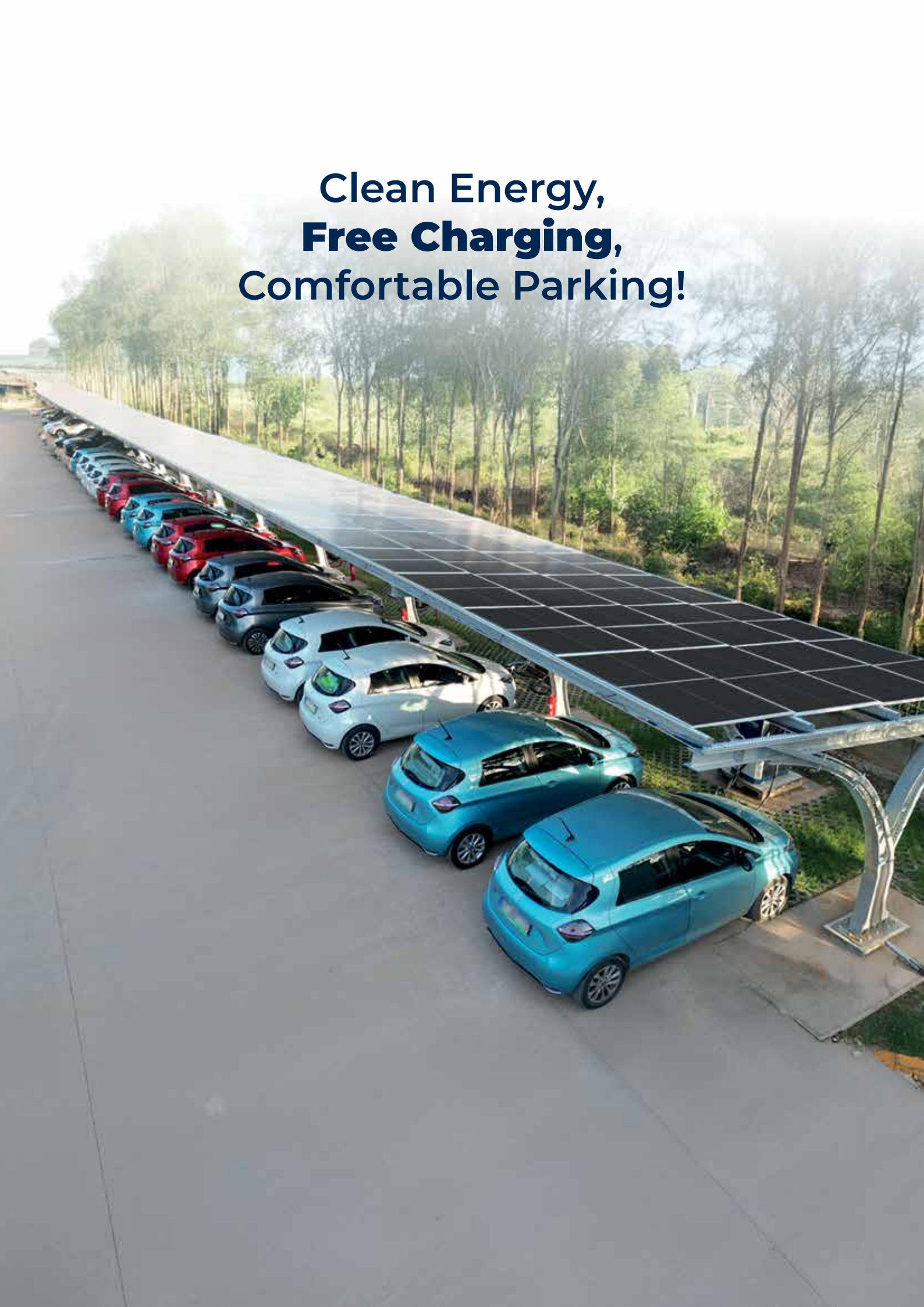
6. STRUCTURE AND INSTALLATION DURABILITY:

- **Durability:** The carport structure is typically built from robust materials and is resistant to various weather conditions.
- **Ease of Installation:** The system can be customized to fit existing parking areas and is generally quick to install.

Reliable and
Uninterrupted Energy at Your Home!



Clean Energy, **Free Charging**, Comfortable Parking!



1 VEHICLE SOLAR CARPORT

AY-CAR-STL-1CAR-590

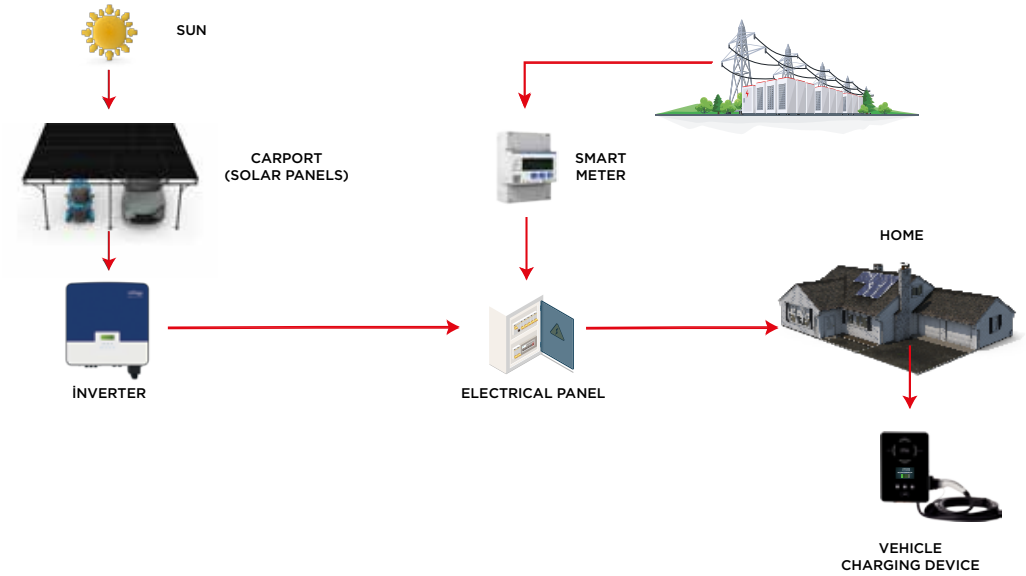
SOLAR CARPORT

Designed to expand the use and application areas of clean and infinite solar energy, TommaTech Solar-Powered Carports offer smart solutions to users through their innovative “Solar Carport” systems.

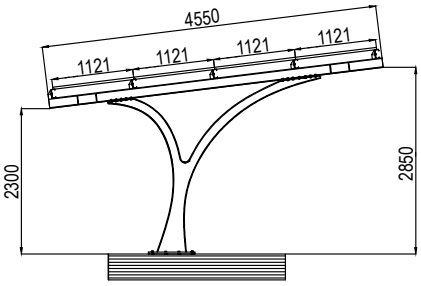
Product Features

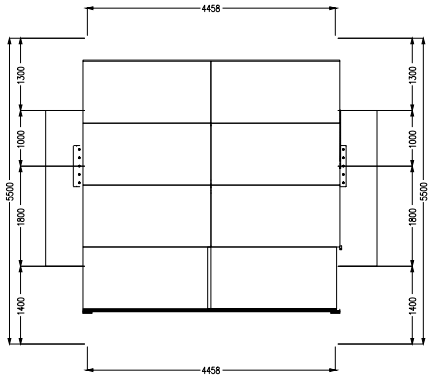
- High Productivity
- Self-directed Cleansing and Reflection Reducing Glass
- Low Irradiance High Efficiency
- Excellent Resilience Capacity
- 0~+5W Positive Power Tolerance
- 100% Compatible with Solar Energy
- High Speed
- Productivity
- OCPP 1.6J
- Lightning Protection

Connection Diagram



MODEL	445WP	590WP
ELECTRICAL SPECIFICATIONS		
Number of Vehicles	1 Vehicle	1 Vehicle
Number of Solar Panels	8	8
Type of Solar Panel	TT445-108TNBCK10 Waterproof	TT590-144TNBCK10 Waterproof
Maximum Power of the Solar Panel [Wp]	445	590
Total Installed Power [kWp]	3.56	4.72
Total Solar Panel Area [m^2]	16.42	20.66
Solar Panel Tilt Angle [°]	10	10
Application Area Dimensions [m^2]	3.99 x 5.20	20.41
Minimum Interior Height [m]	2.2	2.30
Maximum Interior Height [m]	3.0	2.85
Solar Panel Orientation	South	South
Construction Material	Steel	Steel
SOLAR PANEL		
Maximum Power [Pmax]	445	590
Module Efficiency [%]	22.79	22.84
Cell Size [mm]	182x91	182x91
Number of Cells [Units]	108 (6x18)	144 (6x24)
Weight [kg]	23.20	29.0
Panel Size [mm]	1762x1165.1x25.6	2278x1134x35
INVERTER		
Maximum PV String Input Power [Wp]	10000	10000
Maximum PV Input Voltage [V]	1000	1000
MPPT Voltage Range [V]	180~950	180~950
Nominal AC Output Power(MPPT A / (MPPT B) [A	16/16	16/16
Nominal AC Output Power [W]	6000	6000
Maximum AC Output Apparent Power [VA]	6600	6600
Maximum AC Output Current [A]	9.70	9.70
Communication Interface	Dongle Wifi	Dongle Wifi
EV CHARGER		
Nominal Output Voltage [V]	400±%10	400±%10
Nominal Output Current [A]	32	32
Available Power [kW]	22	22
PHYSICAL CHARACTERISTICS		





* The data provided above has been obtained under standard test conditions (STC): 1000 W/m^2 solar irradiance, 1.5 (AM) air mass, and 25°C cell temperature. Measurement uncertainty for all panels is ±3%. Actual data will be subject to the terms of the contracts. The technical values presented in this document are for informational purposes only and are not part of the contracts. The technical specifications in this document may vary.

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

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2 VEHICLE SOLAR CARPORT

AY-CAR-STL-2CAR-590

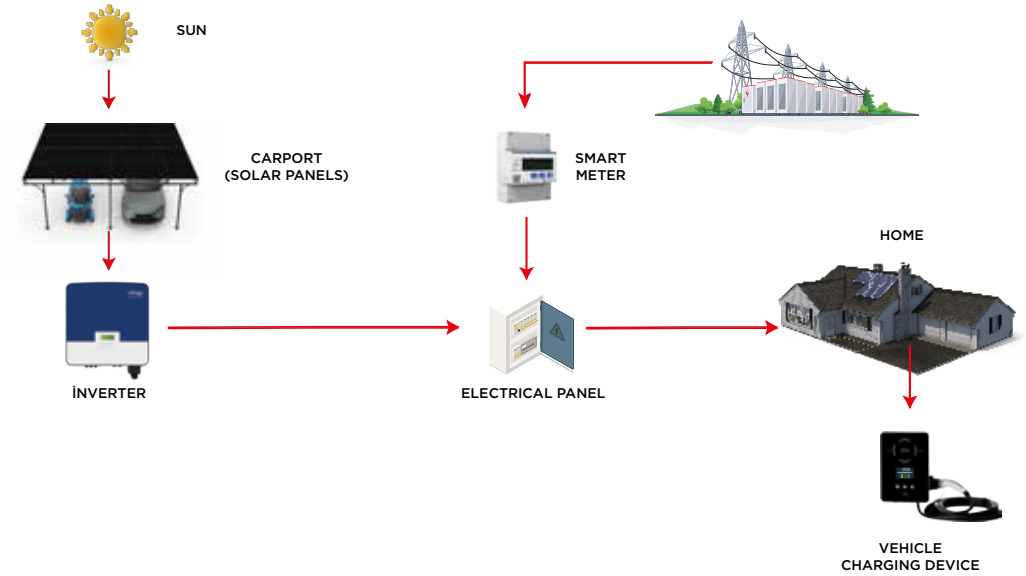
SOLAR CARPORT

Designed to expand the use and application areas of clean and infinite solar energy, TommaTech Solar-Powered Parking Solutions, known as “Solar Carports,” offer smart solutions to users.

Product Features

- High Productivity
- Self-directed Cleansing and Reflection Reducing Glass
- Low Irradiance High Efficiency
- Excellent Resilience Capacity
- 0~+5W Positive Power Tolerance
- 100% Compatible with Solar Energy
- High Speed
- Productivity
- OCPP 1.6J
- Lightning Protection

Connection Diagram



MODEL	445WP	590WP
ELECTRICAL SPECIFICATIONS		
Number of Vehicles	2 Vehicle	2 Vehicle
Number of Solar Panels	12	12
Type of Solar Panel	TT445-108TNBCK10 Waterproof	TT590-144TNBCK10 Waterproof
Maximum Power of the Solar Panel [Wp]	445	590
Total Installed Power [kWp]	5.34	7.08
Total Solar Panel Area [m²]	24.63	30.99
Solar Panel Tilt Angle [°]	10	10
Application Area Dimensions [m²]	3.99 x 5.20	27.0
Minimum Interior Height [m]	2.2	2.30
Maximum Interior Height [m]	3.0	2.85
Solar Panel Orientation	South	South
Construction Material	Steel	Steel
SOLAR PANEL		
Maximum Power [Pmax]	445	590
Module Efficiency [%]	22.79	22.84
Cell Size [mm]	182x91	182x91
Number of Cells [Units]	108 (6x18)	144 (6x24)
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Nominal AC Output Power [W]	6000	6000
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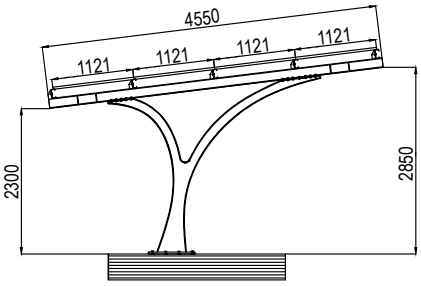
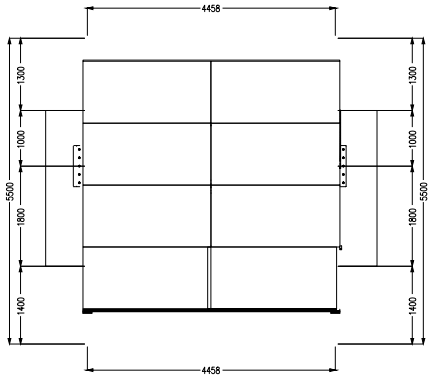
Communication Interface	Dongle Wifi	Dongle Wifi
EV CHARGER		
Nominal Output Voltage [V]	400±%10	400±%10
Nominal Output Current [A]	32	32
Available Power [kW]	22	22
PHYSICAL CHARACTERISTICS		





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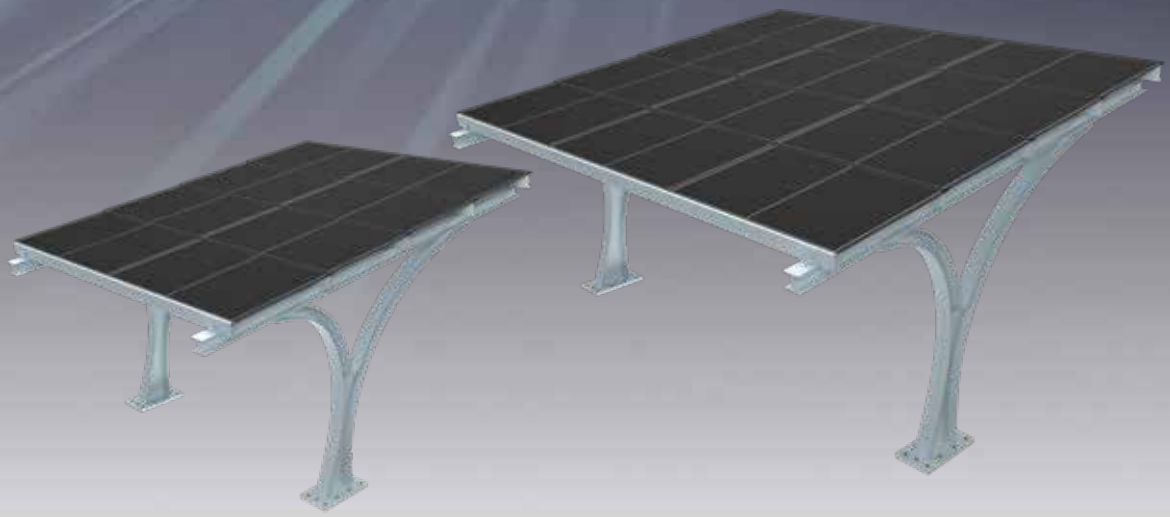
Sustainable
Parking Areas



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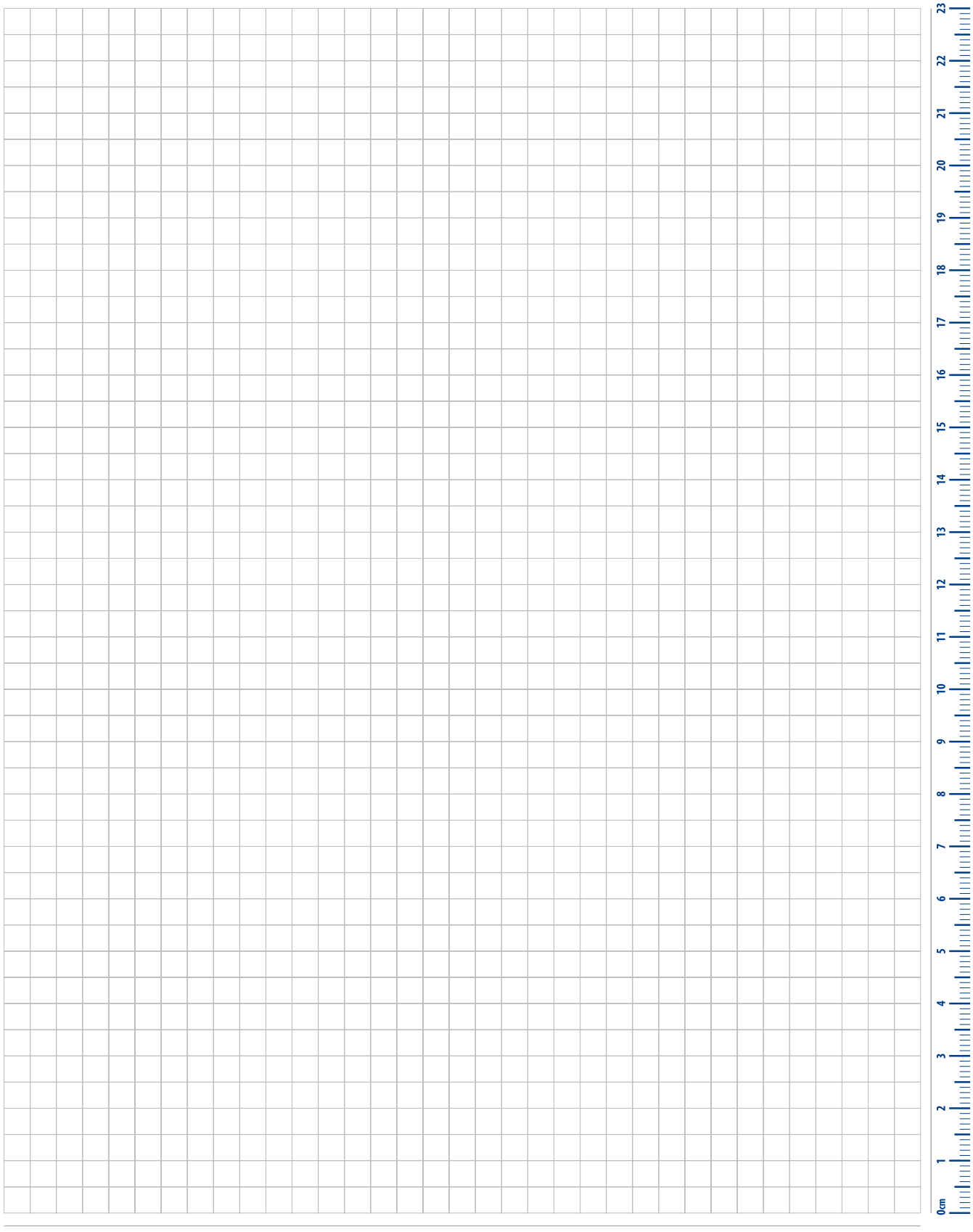

mail@tommatech.de

tommatech.de

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