



# Modular tracker profile: innovative solutions for a solar-powered tomorrow

As the global demand for solar plants continues to rise, the need for more efficient and modular solar trackers becomes increasingly important. The IDEEMATEC L:TEC® Family delivers top performance across the most common tracker segments, uniquely designed to meet the diverse needs of solar power plant stakeholders.



Built on a unified platform and sharing a common DNA, the range offers three distinct trackers: the L:TEC® 1P, L:TEC® 2P and L:TEC® Agri-2P, each tailored for specific applications and customer requirements. This article explores the features and advantages of each tracker, highlighting how they contribute to optimized energy production and operational efficiency, ensuring that all involved parties can rely on IDEEMATEC as a trusted partner.

#### **L:TEC® 1P: the highlight of innovation**

At the heart of the L:TEC® Family stands the Horizon L:TEC® 1P, recognized as the most advanced one-in-portrait solar tracker on the market. Engineered specifically for utility-scale applications, it sets a new industry benchmark for efficiency, structural strength and resilience, addressing the critical needs of developers and investors.

The tracker utilizes IDEEMATEC's patented decoupled drive system, which effectively redistributes mechanical stress. This design ensures stable operational performance even under continuous load, capturing higher yields and revenues. Designed to withstand harsh environmental factors, the L:TEC® 1P endures wind speeds of up to 400 km/h and heavy snow loads. The flat stow strategy

automatically positions the tracker in a secure position during adverse weather, reducing stress and prolonging its lifespan, a crucial aspect for stakeholders concerned about long-term reliability.

Supporting row lengths of up to 260 meters and accommodating up to 240 modules on one tracking system, the tracker is ideal for large-scale installations. Its efficient design minimizes the number of electrical components and drive units, leading to reduced maintenance challenges. By maximizing availability and energy output, it enables independent power producers (IPPs) to achieve competitive levelized cost of energy (LCoE) and higher returns, making it a viable option for large utility-scale projects and a sound investment for financiers.

In summary, the Horizon L:TEC® 1P exemplifies cutting-edge technology while aligning with the global push for sustainability. Its reliable performance and innovative design make it a smart choice for all stakeholders in the solar industry.

#### **L:TEC® 2P: the scalable solution for all project sizes**

The L:TEC® 2P is the ideal choice for solar plants with limitation of land and designed

specifically for distributed generation applications. This tracker addresses the unique demands of especially smaller-scale projects, ensuring that developers and EPCs can meet local energy needs effectively.

The tracker features a modular architecture that allows for seamless installation and scalability. This flexibility makes it an ideal choice for projects that may expand over time, assuring solar developers that their investments can grow alongside demand. It maintains impressive energy density, with its two-in-portrait configuration supporting row lengths of up to 195 meters and carrying up to 360 modules per string, offering one of the highest capacities and lowest land usage available for distributed generation projects.

The multiple locking system eliminates torsional instability, reinforcing the L:TEC® 2P's reputation as a high-performance solution for demanding installations, allowing investors to feel confident in their financial commitments. It also comes with the lowest number of foundation piles per megawatt, making it the system of choice for challenging soil conditions.

By combining efficiency with lower installation and maintenance costs, the L:TEC® 2P





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provides a compelling value proposition for clients, ensuring that all involved parties can rely on this tracker for reliable energy generation in diverse environments.

### **L:TEC® Agri-2P: integrating agriculture and solar energy**

In response to the increasing interest in agrivoltaics, IDEEMATEC introduces the L:TEC® Agri-2P, its latest tracker specifically designed for agricultural applications. This innovative solution allows for dual land use, merging solar energy production with agricultural functionality, addressing the evolving needs of farmers and agricultural stakeholders.

The tracker enables farmers to cultivate agricultural products while generating solar energy, maximizing land use and providing additional income streams. It is designed to provide adequate shade for crops, which can enhance growth and yield in certain climates. By balancing energy production with agricultural needs, it supports sustainable farming practices, ensuring that agricultural stakeholders can benefit from both energy generation and crop production.

Like its counterparts, the L:TEC® Agri-2P is built to withstand challenging environmental conditions, ensuring reliable performance in diverse climates. Its structural strength and stability make it a dependable choice for

agricultural settings, providing peace of mind to farmers and investors alike. The tracker's integrated control system, accessible via a mobile app, allows real-time adjustments based on weather conditions, ensuring reliable operation even in remote or low-connectivity areas.

In conclusion, the L:TEC® product family exemplifies a commitment to innovation and sustainability in the solar industry, delivering tailored solutions that meet the diverse needs of stakeholders. This comprehensive approach ensures that all parties, from developers to investors, can rely on IDEEMATEC as their trusted partner in the solar energy revolution.



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## Fast and easy installation with preassembled components

IDEEMATEC is proud to announce that the L:TEC® now comes with preassembled components, simplifying the installation process. This new offering aims to streamline workflows, improve efficiency and reduce logistical efforts on-site, making solar plant construction more accessible than ever.

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### Targeting installation costs: a focus on efficiency

Solar energy installers are under increasing pressure to reduce costs and meet tight project timelines. IDEEMATEC has answered this challenge by transforming the solar installation process through preassembly and standardization.

This strategy focuses on reducing various cost factors, including material expenses, labor costs and assembly time.

By streamlining workflows, we enhance quality control and facilitate faster project execution, ultimately delivering significant savings for stakeholders.

### Precision in installation: reducing errors and time

The optimized installation process begins with preassembled components that minimize onsite assembly time and significantly reduce installation errors. Controlled offsite assembly ensures greater precision and consistency

across project sites, leading to time savings of 18% to 23%.

This efficiency becomes even more crucial in high-cost labor markets, where every minute saved translates to lower operational costs. With up to 33% fewer unique components, the requirement for specialized tools is diminished, simplifying logistics and part handling.

### Enhancing scalability and supply chain efficiency

IDEEMATEC's streamlined installation process also facilitates faster and more efficient scaling of large projects.

With preassembled components and standardized parts, developers can deploy trackers quickly and consistently across various sites, accelerating the learning curve for installation teams and reducing labor costs.

Fewer unique components improve supply chain efficiency.

### Consistent quality and reliability

The controlled and repeatable nature of our installation process guarantees consistent results across diverse project locations.

Our simplified design reduces the likelihood of installation errors, bolstering system reliability and empowering developers to meet aggressive deadlines without compromising quality.

With fewer parts to manage, organizing preassembled components onsite becomes significantly easier, streamlining logistics and ensuring a smoother workflow throughout the construction process.

This efficiency not only enhances project execution but also contributes to a more organized and effective installation environment.

By integrating faster installation with reduced operational costs, the company enables installers to enhance profitability while accelerating the transition to clean energy.

This innovative approach offers a scalable, low risk solution that promises high returns for the future of large-scale solar energy.

This advancement marks a significant leap forward in optimizing solar energy projects, ensuring they are not only efficient but also economically sustainable.

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