



# Invest with confidence Smart Solar Inverter Solutions

Residential, commercial and large scale applications

One

**inverter supplier**

of reliable, flexible  
and user friendly  
inverter solutions for  
all PV applications

# Smart solar inverter solutions



# Infinite possibilities



Planning a PV system that reliably delivers maximum yields at minimum cost is simpler with a Danfoss solar inverter solution. Whether you are designing a residential installation or a MW power plant, a fully optimised system will raise your energy yield while lowering system costs.

## **Smart technology**

With a powerful suite of tools, achieving optimised yield in the best possible configuration has never been easier: From planning and installation, to trouble-shooting and service from one of the industry's most experienced solar support teams, you get a hassle-free solar solution that's easy to design, install, operate and maintain.

A man with short brown hair, wearing a black button-down shirt, is smiling and looking towards the camera. He is standing in front of a two-story brick house. The house has a brown tiled roof with several large, blue solar panels installed. There are white-framed windows and a white door visible on the brick wall. The sky is blue with some light clouds.

Just one inverter is needed for installations up to 17kWp  
– with built-in monitoring

# Yield and reliability – the smart way to increase value

Offering better value for money is important to your business. The ability to design a system with high yields and low costs in a limited space is crucial to your success. Imagine the advantages of being able to create PV systems from just above 1 kWp up to 17 kWp using only one inverter per system.

## **Maximise your potential**

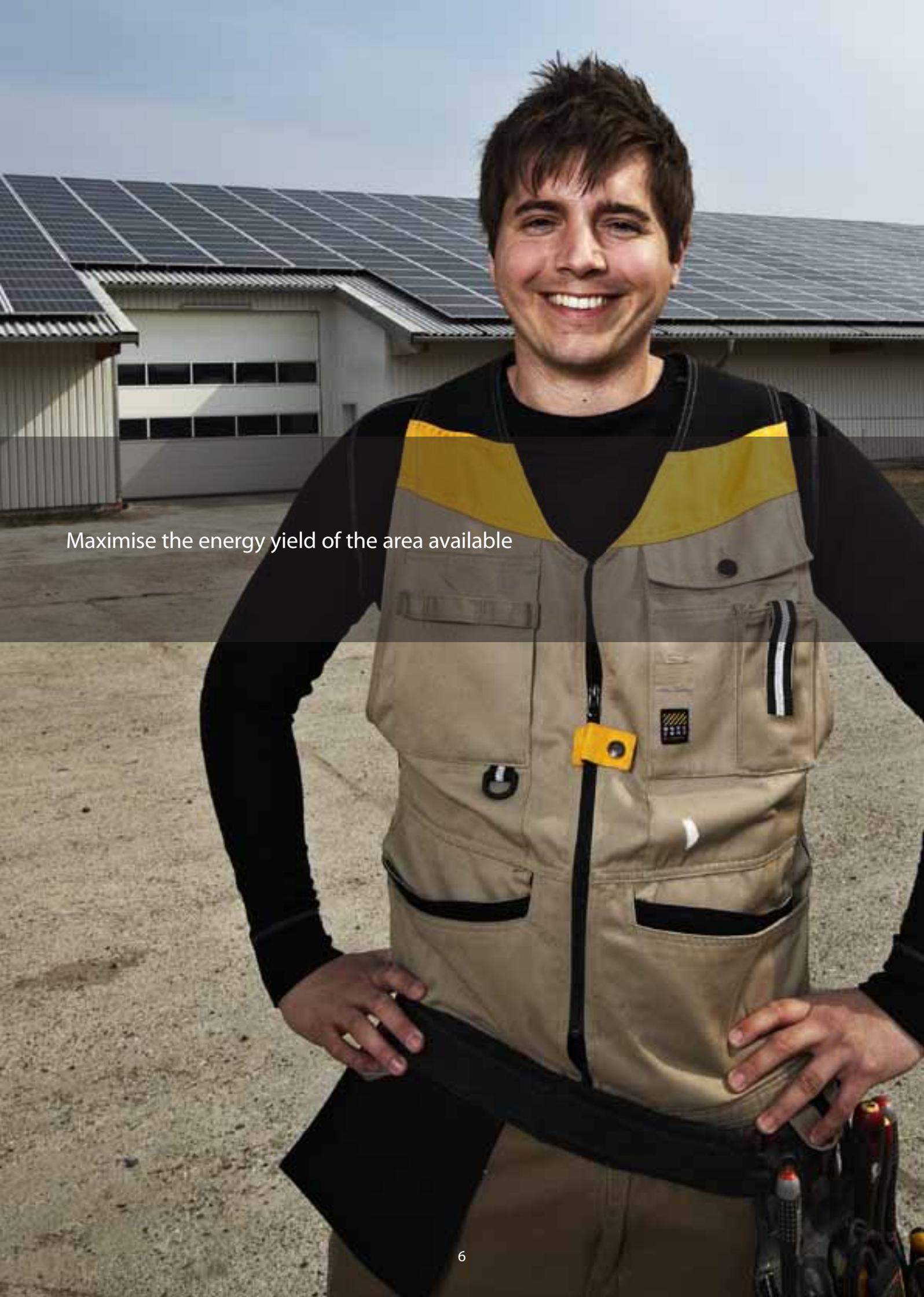
Multiple MPP tracking lets you reach the highest solar potential of any roof area. Every kind of module technology can be used – even a combination. And thanks to the three-phase output of the TLX inverter, asymmetric grid loads are eliminated. For smaller installations you get maximum flexibility by using our single-phase ULX inverter.

## **Save on installation**

The **EnergySmart™** features of the TLX inverter also lets you economise on installation costs: with its maximum 1000 VDC input voltage, it's now possible to reduce both the number of strings and the efforts involved in string cabling. This also allows the system to reach higher yields, as the high voltage on the DC side reduces DC cable loss.

## **Monitoring included**

The TLX Pro inverter includes integrated logging, monitoring and communication functions, giving you the time-saving option of being able to monitor an installation from the comfort of your home or office – without having to pay for extra data logging equipment.



Maximise the energy yield of the area available

# Flexibility and potential – size-smart advantages

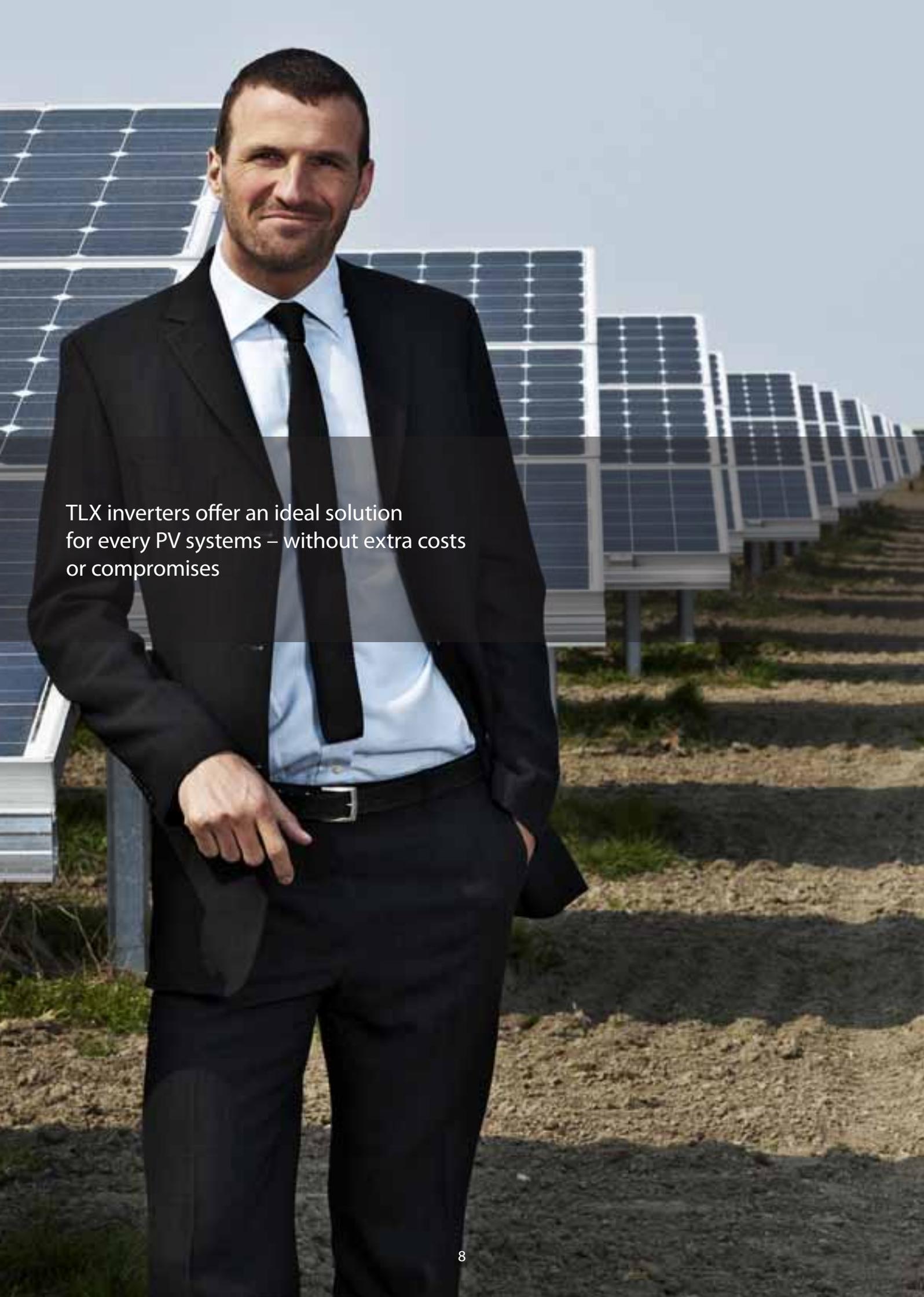
The smallest advantages in design details and hardware can often be the tipping point in a hard-fought tender situation: With systems of between 20kWp and 100kWp predominating in many markets, it makes competitive sense to choose a solution with details designed to maximise yields in this range.

## **Simplified for efficiency**

Even when using just a few TLX inverters you can optimise PV systems by taking advantage of numerous MPP trackers. Our **EnergySmart™** feature achieves a string voltage close to the nominal DC voltage of the inverter to deliver the best possible yield – it also simplifies the system design and installation. You can also combine any TLX inverter, in any order, to strike the ideal ratio between PV module power and the inverters' AC power.

## **Built-in monitoring**

DC current and voltage from every MPP tracker is supervised and logged. This built-in surveillance gives you a high level of operational accuracy and system reliability without the hassle and cost of additional string monitoring hardware. **ControlSmart™** gives you a 24/7 overview of your installation. You can also seamlessly connect external monitoring from our matched ComLynx range or third party products.

A man in a dark suit, light blue shirt, and dark tie stands in front of a large array of solar panels. The panels are arranged in rows, receding into the distance under a clear sky. The man is smiling slightly and has his hands in his pockets.

TLX inverters offer an ideal solution  
for every PV systems – without extra costs  
or compromises

# Efficiency and monitoring – larger scale, smarter control

Large systems of several 100 kW to MW demand a detailed design to achieve and maintain an optimum yield. With flexible TLX Pro string inverters there is no need to compromise. The unique combination of **EnergySmart™** and **DesignSmart™** functions allow you to plan the ideal system.

## **Grid ready**

Country specific DNO requirements are fulfilled; from power level adjustment to the provision of reactive power. You also have the choice of connecting your system directly to the LV grid or to the MV grid using a standard MV transformer.

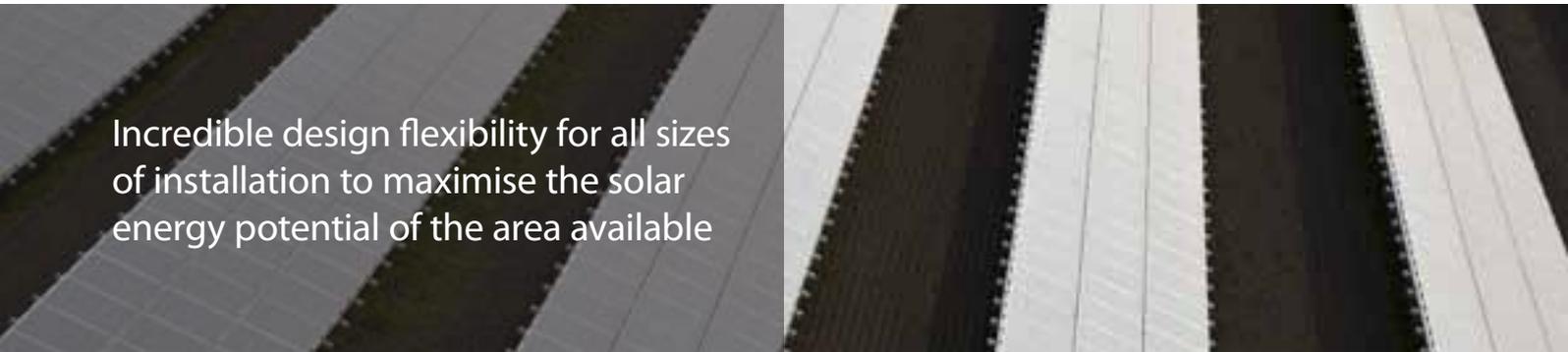
## **Stay in control**

With **ControlSmart™** you can configure a single inverter to control all inverters in the system, ensuring easy installation and fewer commissioning faults. You also get the monitoring and communication functions you require without the need for external solutions – and you can easily upload data to a data warehouse for additional functionality.

## **Lifetime savings**

In most cases, TLX Pro string inverters are a better alternative to a central inverter – even for PV power plants of MW size. The planning is easier, there is less effort spent on installation, the monitoring solution is integrated and you get very good value for money. Best of all, these savings continue throughout the operational life of your system with significantly lower maintenance costs and higher availability during its lifetime.

# Simply designed for smarter solutions



Incredible design flexibility for all sizes of installation to maximise the solar energy potential of the area available

From residential to large scale PV systems, Danfoss always gives you the smartest solution: In residential installations you now get monitoring and logging included in your installation. In larger installations you get accurate string monitoring without the need for additional monitoring units. For large scale installations, the master functionality lets you quickly commission your system while eliminating the risk of configuration faults.

#### **Choose with confidence**

With Danfoss **Smart** technology features, including **EnergySmart™**, **DesignSmart™**, **TrackSmart™** and **ControlSmart™**, your investment risk is minimised and long-term yields optimised. With the trusted experience of the Danfoss Solar Inverters engineering team at your disposal from day one, we've made it simple for you to get the smartest solution every time.

Read more about our **Smart** technologies at [solarinvertersolutions.com](https://solarinvertersolutions.com)

# Building a partnership today and tomorrow



A solution from Danfoss Solar Inverters is the result of many years of experience in both power electronics and solar energy. With our unique real-life and lab testing facilities, we are able to deliver reliable, state-of-the-art inverters that take advantage of the latest in production technology.

## **We're listening**

Straightforward and powerful, our solutions cater for a wide range of applications. The versatility of our products, their flexibility and ease of use are a testament to our customer focus. We actively listen to the needs of our partners and we share best practices. We understand that growing together is the only way forward in the increasingly complex solar energy market.

## **At your service**

We know the demands of the solar industry and that time is money: Every hour your solar panels are out of service is visible on your bottom line. That's why we've put in place a service concept that will always find the easiest and fastest way to ensure that your system is up and running.

When you purchase a Danfoss inverter you are treated with respect and dedication, no matter how large or small your project.



Danfoss is a global company with over 40 years of experience in power electronics. We believe some of the world's toughest challenges present an opportunity to do what we do best: engineer innovative solutions and back them up with services that benefit our customers and the communities we live in.

Find your local Danfoss contact at [www.danfoss.com/solar](http://www.danfoss.com/solar) where you can find out how we can help you develop competitive, future-proof solar inverter solutions for your customers today.

Learn more about our smart solutions at [solarinvertersolutions.com](http://solarinvertersolutions.com)

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