



SMA COMMERCIAL ENERGY SOLUTIONS

Sunny Tripower CORE1

Innovative design for an economical solution



SUNNY TRIPOWER CORE1 STANDS FOR COMMERCIAL SOLAR

A global solution optimized for all commercial applications



1

SCALABILITY WITH MAXIMUM ENERGY HARVEST

Sunny Tripower CORE1 provides an ideal building block for scalability up to the MW range, and versatility for all commercial PV applications, including repowering legacy 600 VDC systems. ShadeFix, SMA's proprietary shade management technology, ensures optimal energy harvest without the added cost and complexity of competing module-level optimizer solutions.



2

HIGHLY INTEGRATED

The compact yet fully integrated design allows integrators to save logistical, labor and material costs. Along with 12 direct string inputs, the CORE1 also includes DC and AC disconnects as well as optional DC and AC surge protection.

3

COST EFFECTIVE

The CORE1 needs no racking on roof-mount systems and very minimal, highly simplified racking in other commercial applications. This results in additional cost savings due to the reduction in field labor, time and materials.

Sunny Tripower CORE1 is the world's first standing PV inverter for commercial rooftops, carports and ground-mount solar projects. The innovative new design offers up to 60% faster installation while delivering optimized total cost of ownership.

4

ADVANCED GRID SUPPORT CAPABILITIES

CORE1 inverters are certified to IEEE 1547-2018 / UL 1741 SB for compliance to the latest grid interconnection requirements. In combination with the SMA Data Manager M, powered by the award-winning ennexOS, advanced energy management functions like zero or limited export control and dynamic reactive power supply can be implemented to meet project-specific requirements.



5

UNMATCHED SYSTEM VISIBILITY

With Analysis Pro available for systems registered in SMA's ennexOS Sunny Portal monitoring platform customers get detailed visibility to system operating behavior and events, providing insights to proactively and remotely identify performance issues. CORE1's integrated IV curve diagnostic function provides detailed documentation of PV string health typically required during system commissioning and periodic O&M.

6

BEST-IN-CLASS SAFETY

CORE1's integrated signal transmitter communicates with SunSpec certified module-level shutdown devices for compliance to NEC rapid shutdown requirements. And with new UL 3741 PV Hazard Control listings with major array racking partners, NEC rapid shutdown compliance for emergency first responder safety is now possible without the added cost and complexity of module-level shutdown.



COMPACT POWER FOR COMMERCIAL ROOFTOPS, CARPORTS AND GROUND-MOUNT PROJECTS



Sunny Tripower CORE1. The superior way to get your projects up and running

As the third generation of SMA's industry-leading Sunny Tripower product line, the CORE1 revolutionizes the commercial inverter category. Its innovative engineering approach is built on a foundation that includes a groundbreaking form factor and inventive mounting method whose goals are to speed installation and achieve the most economical return on investment for all parties involved.

Whether it's a rooftop, carport, MW scale ground-mount or repowering legacy 600 VDC system, the CORE1 is the most versatile, cost-effective commercial solution available. From distribution to construction to operation, the Sunny Tripower CORE1 enables logistical, material, labor and service cost reductions.



SUNNY TRIPOWER CORE1 FOR DISTRIBUTORS

Product ordering, stocking and logistics have all been simplified thanks to the CORE1's maximum level of integration. Additional cost savings are achieved with:

- **One product for various commercial applications**
- **Global platform for universal deployment**
- **Reduced part numbers and balance-of-system components**
- **Unmatched support and service**



SUNNY TRIPOWER CORE1 FOR EPCS AND DEVELOPERS

Procurement, installation and field labor costs must be reduced to maintain margins, so that's precisely what's driven the development of the CORE1. Benefit from:

- **Reduced material costs**
- **SunSpec PLC compatibility**
- **Accelerated installation and decreased labor**
- **Options for repowering**



SUNNY TRIPOWER CORE1 FOR SYSTEM OWNERS

SMA understands that lifetime cost of ownership and uninterrupted performance are paramount among system owners. That's why the CORE1 delivers:

- **Maximum energy production thanks to ShadeFix optimization**
- **Proactive monitoring solutions with SMA Smart Connected**
- **Intelligent grid management**
- **24/7 remote monitoring from the world's leading service team**

The CORE1 is a versatile solution with maximum return on investment



WHAT IS SMART CONNECTED?

Powered by the award-winning ennexOS, SMA Smart Connected is a proactive monitoring solution that can cut truck rolls in half and save up to \$6 million in service costs across the lifetime of a 100 MW portfolio.



1. Time and labor savings

Installers benefit from this proactive, streamlined service solution in a variety of ways.

- a. SMA will actively monitor the system at all times, so the installer can focus on other tasks
- b. SMA Smart Connected can automatically initiate the repair or replacement process, circumventing calls from system owners that can sap productivity and threaten referral business



2. Increase productivity and profit

SMA Smart Connected can positively affect an installer's bottom line well after installation and throughout the lifetime of the system.

- a. Truck rolls can be cut in half, allowing more time for revenue-generating activity including business development and new installations
- b. Satisfied customers who receive proactive service solutions are far more likely to generate referral business



3. Maximum power production

System owners benefit from fast resolution, hassle-free repair and SMA's track record of reliability.

- a. SMA Smart Connected can notify an installer of any service needs often before the system owner even notices an interruption in energy production
- b. If needed, seamless repair or replacement of the inverter is completed without the need to coordinate multiple installer visits



4. Investment security

SMA stands alone in providing the highest level of service for both installers and system owners, and has the stats to prove it.

- a. SMA is the largest, most experienced PV service provider with 40+ years of experience and 100+ GW in operation worldwide
- b. SMA has been voted #1 by IHS Research in terms of most preferred service and warranty support

UL 3741 PV HAZARD CONTROL SOLUTION

Meet rapid shutdown compliance without the need for module-level power electronics.

WHAT IS UL 3741?

UL 3741 Standard for Photovoltaic Hazard Control provides a means for evaluation of components, equipment and systems that provide a reduced level of shock hazard from energized PV system equipment and circuits located within the PV array. Requirements for PV arrays addressed in this standard are intended for compliance with the National Electrical Code (NEC) requirements for controlling electrical shock hazards inside the array boundary to protect firefighters and other emergency first responders.

To obtain UL 3741 certification, products must pass a series of tests designed to simulate situations firefighters may encounter on a solar rooftop. For example, the testing analyzes what happens when first responders fall on damaged solar panels while wearing typical protective gear.

WHY THE CORE1?

SMA has worked with major commercial rooftop array racking suppliers to certify their racking systems to UL 3741 with CORE1 inverters. The CORE1's freestanding design makes it uniquely suited to installation within the array boundary on flat commercial rooftops as required for UL 3741 and NEC rapid shutdown compliance.

WHY IS THIS IMPORTANT?

As a solar industry leader, SMA is dedicated to enhanced measures, regulations and protocols that ensure and encourage the adoption of safe, sustainable energy systems and processes. The goal of UL 3741 is to make rooftop arrays safer for firefighters in an emergency while creating a more consistent standard for installation methods and requirements.





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