

# SUNWAY CONVERSION UNIT

[www.santerno.com](http://www.santerno.com)



**Modular integrated solution  
for utility-scale plants**

# TURN-KEY SOLUTIONS FOR UTILITY-SCALE PLANTS

Leveraging its technical know-how in power conversion systems and its extensive expertise in commissioning photovoltaic plants, Santerno developed Sunway Conversion Unit, a turn-key solution for utility-scale plants.

Sunway Conversion Units are all-in-one systems integrating photovoltaic inverters, MV/LV oil transformers, MV switchgear and auxiliary services.

All devices are 100% in-factory cabled and tested to meet the highest quality standards, deliver unmatched reliability since unloading and minimize on-site overhead.

On top of performance, Sunway Conversion Units provide customers with all-round freedom to customize their solution to meet all kinds of plant-specific requirements.



**100%  
IN-FACTORY  
TESTED**

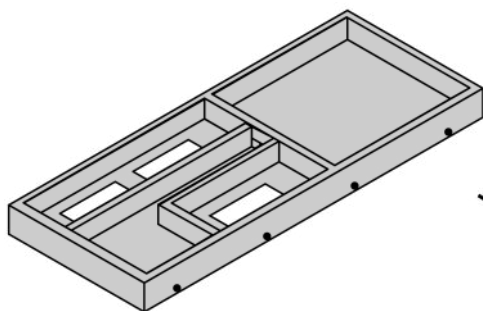


**FAST ON-SITE  
UNLOADING AND  
INSTALLATION**

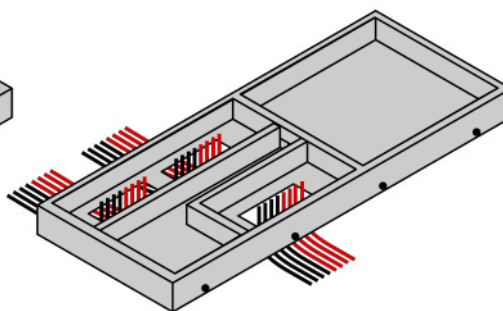


**PLUG&PLAY**

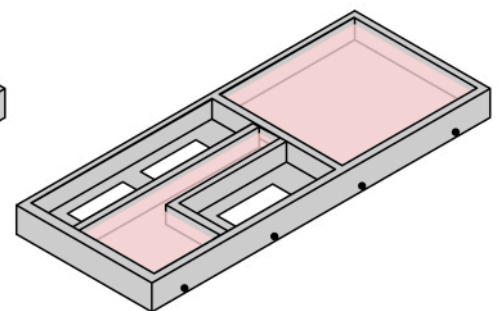
**REINFORCED  
CONCRETE BASE**



**PRE-SHAPED  
FOR ROUTING CABLES**

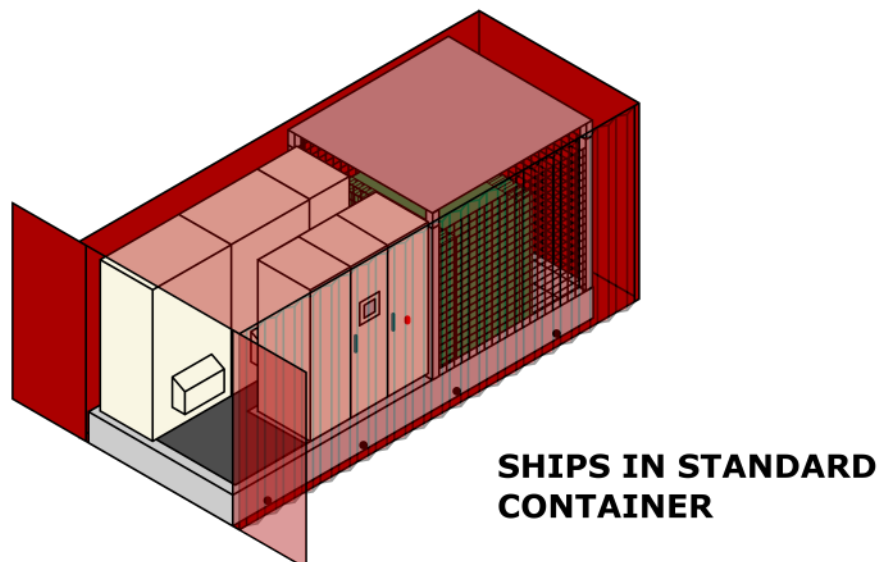
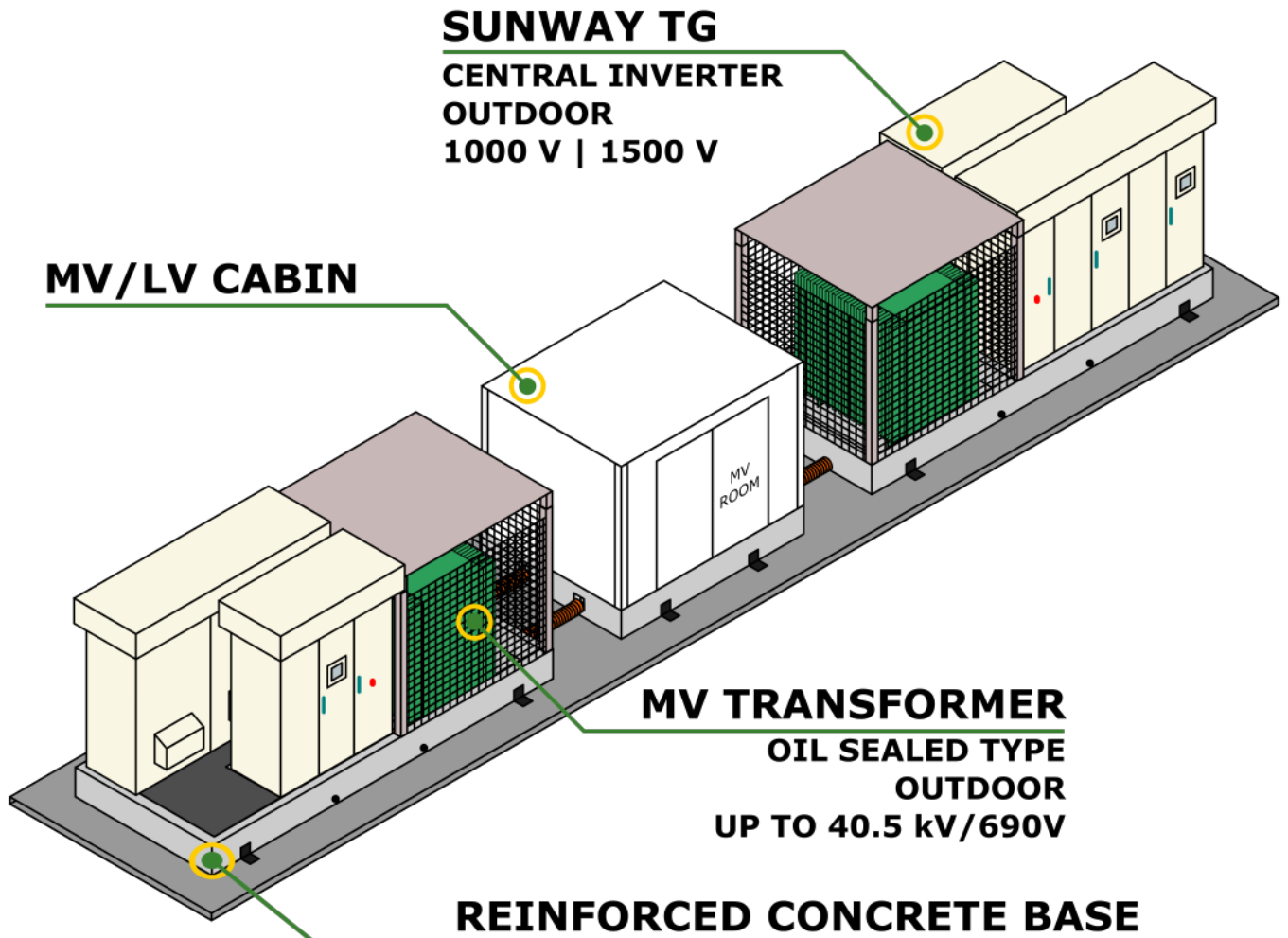


**DESIGNED FOR  
OIL CONTAINMENT**



# MODULAR ARCHITECTURE

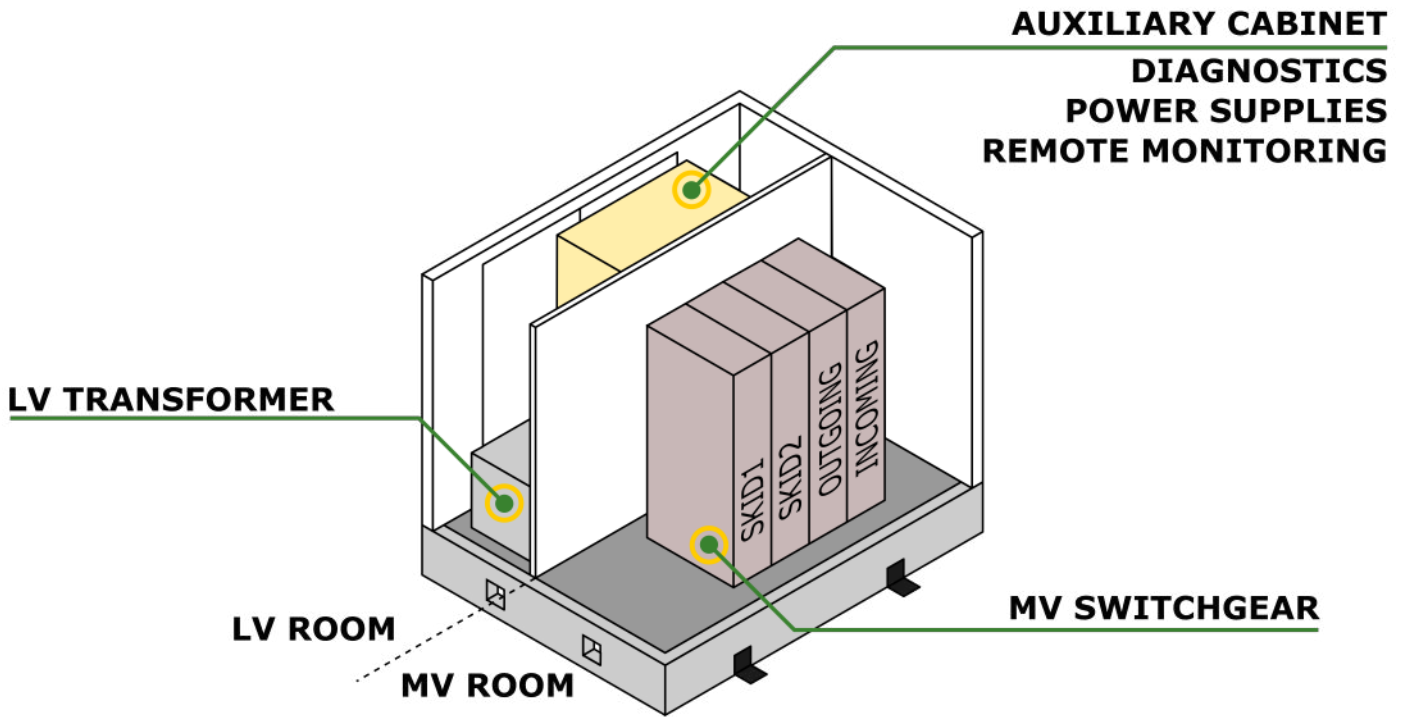
Sunway Conversion Units are designed to deliver maximum flexibility and reliability by means of a modular architecture. 2 to 4 MPPTs can be integrated into each Skid. 1 to 2 Skids can be connected to the central MV/LV cabin. MPPTs and Skids being fully independent and customizable, Sunway Conversion Units can be tailored to fit into any plant configuration.





# MV/LV CABIN

The MV/LV cabin is the connection point of the output power cables and fiber optic or Ethernet cables. A dedicated room hosts the MV switchgear, while all LV devices are installed in a separate LV compartment. Extra space is reserved for customer's own cabinets to be seamlessly integrated in the conversion unit, expanding its native capabilities.



**CUSTOMER  
DEVICES SLOT**

<b>KEY FEATURES</b>	
<b>Reliability</b>	Fully factory-tested devices and cabling warrants compliance with the most stringent quality control standards.
<b>Installation</b>	Plug-and-play solution with minimal on-site overhead. Just plug DC and MV cables to get it online.
<b>Ruggedness</b>	World-class components make Sunway Conversion Units ready for long-term operation in harsh environments.
<b>Customization</b>	Extreme flexibility to fit all photovoltaic plants configurations and embed custom functions.
<b>All-in-one solution</b>	Integrated inverters, MV/LV transformer, MV switchgear, auxiliary services and communications.
<b>Shipment</b>	World-wide shipment in standard containers from factory to site ensures on schedule, trouble-free delivery.
<b>Monitoring</b>	State-of-art connectivity enables seamless integration with plant monitoring infrastructure.
<b>Compliance</b>	An installed capacity in excess of 5 GW is testament to the full compliance of Santerno products to international grid codes and standards.

<b>TECHNICAL SPECIFICATIONS</b>	
<b>DC input voltage</b>	1000 V <sub>DC</sub> , 1500 V <sub>DC</sub>
<b>Independent MPPTs</b>	Up to 8
<b>DC inputs</b>	Up to 8 per MPPT
<b>AC output voltage</b>	11 to 40.5 kV <sub>AC</sub>
<b>AC output power 1000V<sub>DC</sub></b>	5.8 MVA @ 25 °C, 5.2 MVA @ 45 °C
<b>AC output power 1500V<sub>DC</sub></b>	8.6 MVA @ 25 °C, 7.6 MVA @ 45 °C
<b>Communications</b>	Fiber Optic, Ethernet
<b>Data protocol</b>	Modbus TCP
<b>Ingress Protection</b>	IP54 (IP20 open doors)
<b>Dimensions</b>	16.2 x 2.2 x 2.8 m



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