

SUNWAY CONVERSION UNIT

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**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**

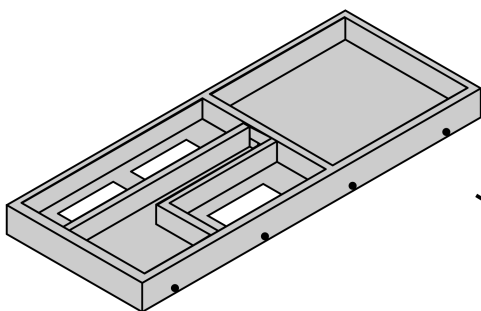


**FAST ON-SITE
UNLOADING AND
INSTALLATION**

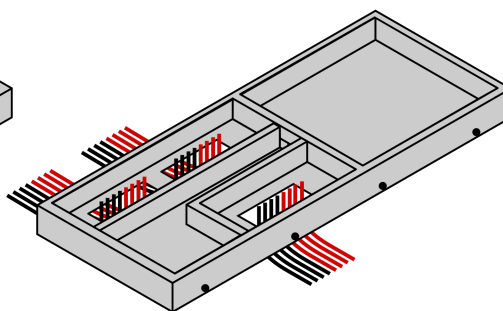


PLUG&PLAY

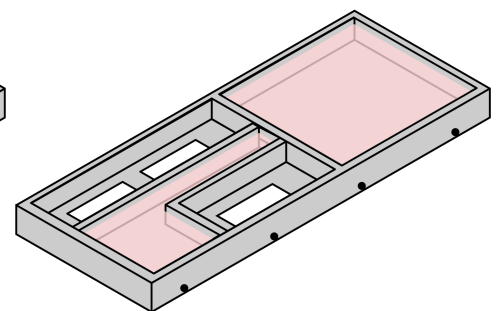
**REINFORCED
CONCRETE BASE**



**PRE-SHAPED
FOR ROUTING CABLES**

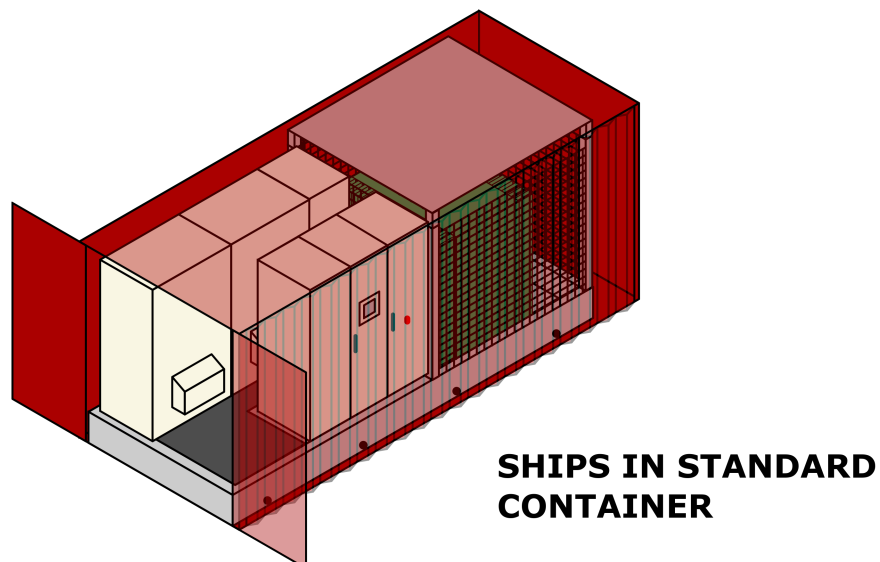
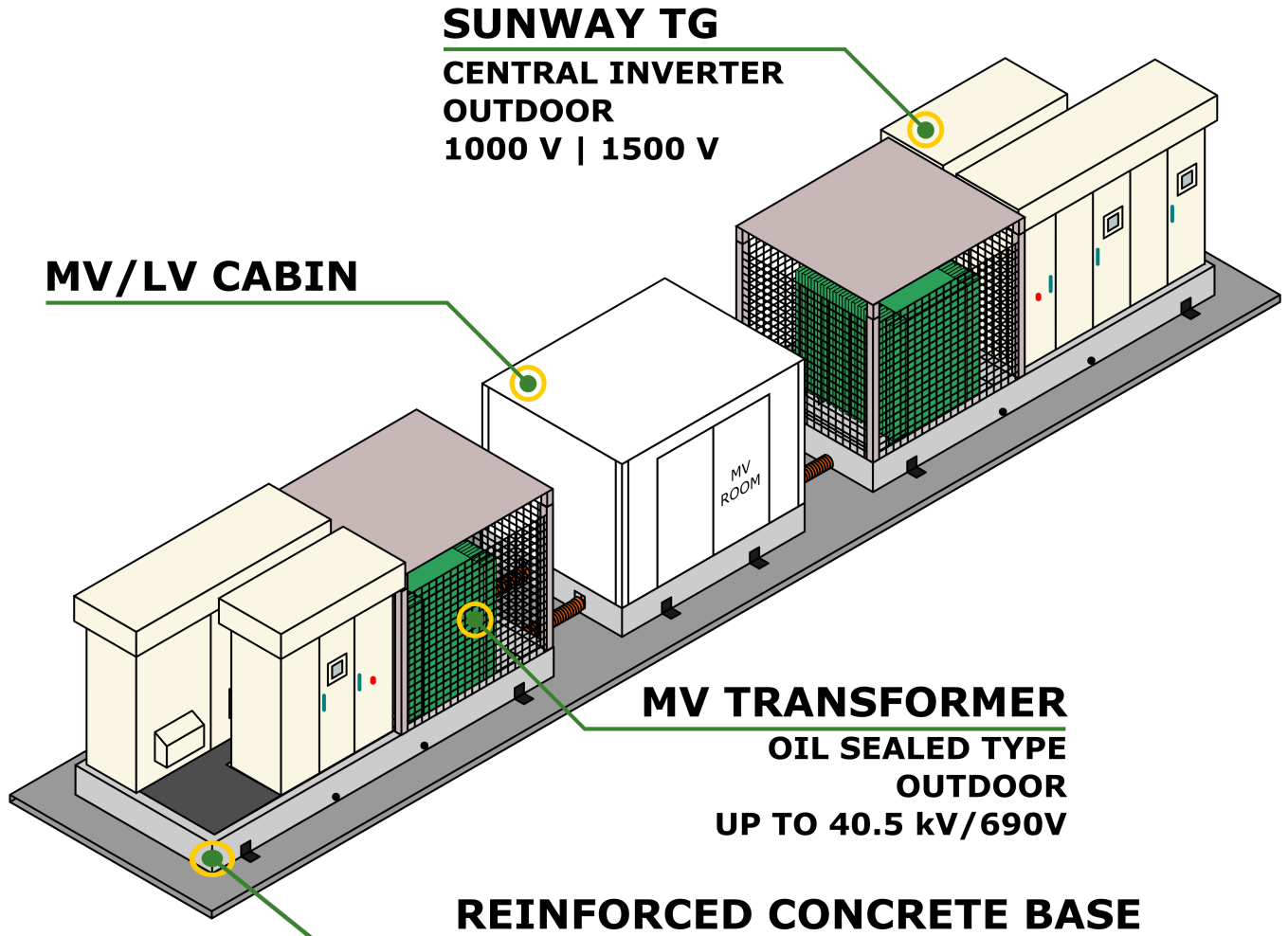


**DESIGNED FOR
OIL CONTAINMENT**



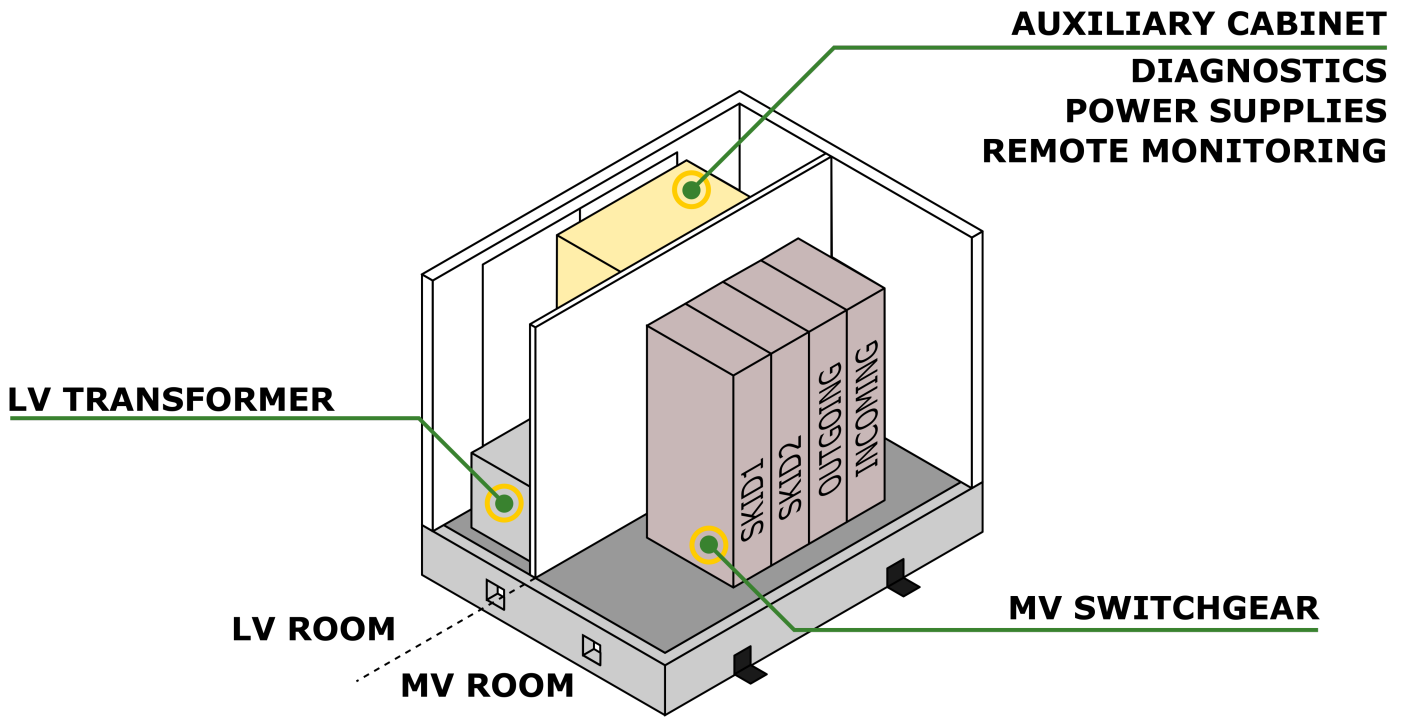
MODULAR ARCHITECTURE

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

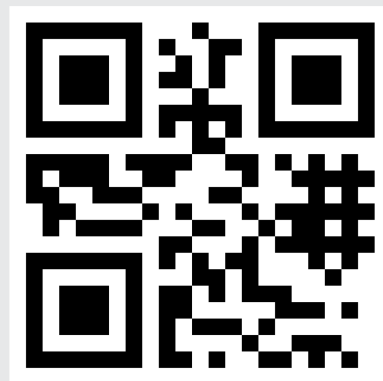
The MV/LV cabin is the connection point of the output power cables and fiber optic or Ethernet cables. A dedicated room hosts the MV switchgear, while all LV devices are installed in a separate LV compartment. Extra space is reserved for customer's own cabinets to be seamlessly integrated in the conversion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



**CUSTOMER
DEVICES SLOT**

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

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



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