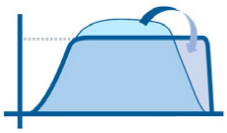
DC Coupled Solar + Storage Solutions

Maximize your energy output with an effective and autonomous system, with controls directed by a deep neural network to create a highly efficient solar + storage solution.

Product Features



Optimally harvest clipped energy and solar shift to achieve highest economic value

Reduced cost by streamlining design compared to AC-coupled energy storage systems

High efficiency systems with fewer inverters and transformers

Optimally configured systems designed with the latest generation Li-Ion battery racks to support 1500Vdc P & battery voltage

Autonomously controlled DC converter and PV inverter with optimized control model between MPP and ESS operations

Maximum output enabled with deep neural network solar forecasting maximizes cliff energy use and energy

Product Specification

IHI Terrasun Solutions, Inc. offers solutions with a broad range of energy capacity and power specifications to meet the project requirements of all customers.

Details	Specifications
DC PV Voltage	850-1500 Vdc *
DC ESS Voltage	972-1296 Vdc **
Estimated RTE	89% - 91%
Battery Technology	Lithium Ion
Temperature Rating	-20° ~ 50°C
Enclosure Protection Rating	NEMA3R
Enclosure Material	Reinforced Concrete, steel, or ISO standard container
Seismic Category	Zone 4, Category E
Auxiliary Power	480V / 208Vac Configurable
Cooling	HVAC
Safety Certification & Compliancy	UL508 or UL-1741 (no Grid interaction testing) NEC 2017
PV Array Connection	16-36 1500V fused inputs (optional)***
Protection	Non-load break disconnect and reverse current blocking diode
PV Inverter Connection	Configurable based on PV inverter vendor requirement
Control Software	Automated control of ESS & PV MPP voltage through DC/DC converter: DNP3.0 Modbus
Warranty / Guarantee	Standard 10-year system warranty and capacity guarantee
UL Certification	UL 9540 inspection performed in the field based on system size and configuration

* DC PV & ESS estimated based on preferred design.
** De-rate based on PV voltage. Details TBD.