

# CONVERT-1P

## SINGLE-AXIS SOLAR TRACKER | 1-IN-PORTRAIT



### Easy to Install. Easy to Own.

The modular design and superior engineering of Valmont® Solar Convert-1P Trackers make them simple to install, easy to maintain and built for long-term performance.



**Simple, Robust Table Structure Design** | Short rows provide best-in-class terrain following and layout density while enabling a stiff structure that minimizes failures and decreases long-term costs.



**Innovative, Hybrid Controller Architecture** | The wireless controller utilizes existing DC infrastructure to enable backup capabilities instead of failure-prone batteries or the need for auxiliary modules.



**Global Supply Chain, Highest Quality** | With 85 manufacturing facilities on six continents, Valmont has the footprint and capability to ship the highest-quality product while offering unmatched price stability and availability.



**International, Bankable Product Portfolio** | The Convert-1P Single-Axis Solar Trackers have been deployed in 11 countries on four continents, generating nearly 3GW for leading customers, financiers and partners.



**THE IDEAL SOLUTION FOR:**  
Distributed Generation Projects  
Utility-Scale Projects

**STRUCTURAL/MECHANIC FEATURES**

<b>Tracking Technology</b>	Horizontal, balanced single-axis tracker with independently driven rows and backtracking
<b>Maximum Tracking Error</b>	± 2°
<b>Rotation Angle</b>	± 55 (Up to 60°)
<b>Module Compatibility</b>	Adaptable to all available PV modules types on market: Monofacial and Bifacial (thin film, framed and frameless)
<b>Ground Cover Ratio</b>	Fully configurable; typical range from 25% to 50%
<b>Land Slope</b>	Up to 7% N-S (extended options available); Unlimited E-W
<b>Configurations</b>	1 module in portrait

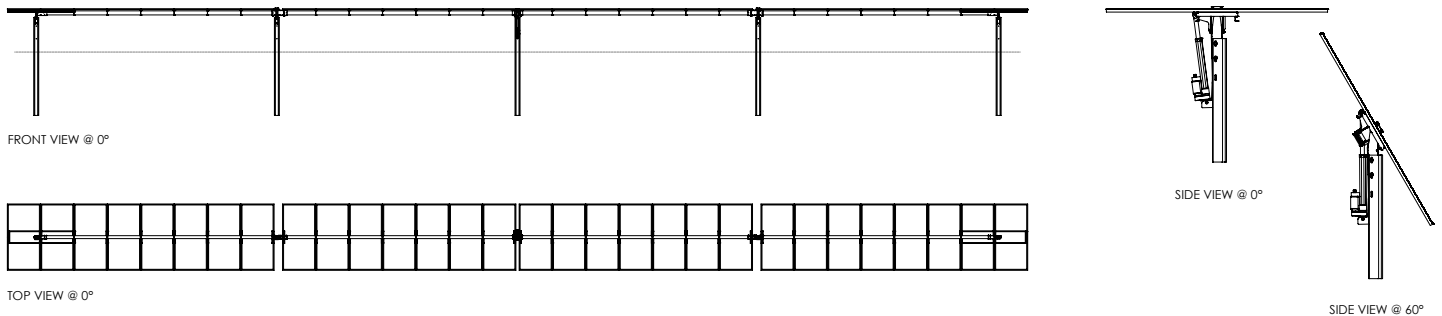
**ELECTRONIC SPECIFICATIONS**

<b>Motor</b>	Linear actuator with induction AC motor (lubrication free) with integrated encoder
<b>System</b>	Electronic control boards for multiple system architectures (two solutions 10 or 100 actuators in closed loop with encoder)
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>• AC power supply from auxiliary service</li> <li>• Self-powered from PV string (patented backup solution without batteries)</li> <li>• Smart power integration with string inverters</li> </ul>
<b>Operating Temperature Range</b>	-20°/50° C (-4° F/122° F) extended range available
<b>Solar Tracking Method</b>	Astronomical clock with GPS input; self-configuring; no irradiation or tilt sensor required
<b>Monitoring &amp; Data Stream</b>	Wireless or wired (RS485, Ethernet, Fiber)
<b>Communication</b>	Real-time local or remote communication data provided via Modbus

**INSTALLATION**

<b>Foundation</b>	Compatible with all foundation types (driven pile, ground screw, concrete)
<b>Installation Method</b>	Requires no specialized personnel or equipment; no in-field welding
<b>Module Installation Method</b>	Rivets, bolts or clamps
<b>Grounding Method</b>	Self-ground structure; no separate materials or labor
<b>Warranty</b>	10 years on structural components; 5 years on motors and electronic components (extended warranty available)

**EXAMPLE OF: TYPICAL TRACKER TABLE WITH 56 MODULES**



**QUALIFICATIONS & CERTIFICATES:**

UL 2703  
UL 3707  
ISO 9001

ISO 14001  
ISO 45001  
ISO 50001

